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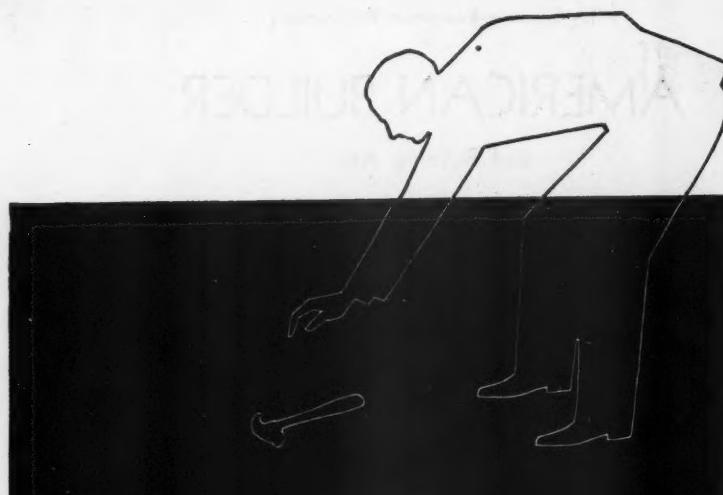
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AMERICAN BUILDER AND BUILDING AGE

The Business Revival and the Homebuilding Industry

BUSINESS indicators for June again show commercial activity on the increase. Loadings of revenue freight in the week ended on June 17 totaled 587,931 cars, an increase of almost 70,000 cars, or 13½ per cent over the same week last year, and a gain of 33 per cent over the low point of 1933. Steel production the same week climbed to 50 per cent of capacity as compared with 19 per cent a year ago. Fully two million men have been put back to work in reopened factories. Automobiles are being made and sold at a rate 14 per cent in excess of June 1932. Farm produce reached new high prices, with grains now practically double in value their earlier lows, and cotton up 67 per cent. Listed stocks and bonds have increased fully 15 billion dollars from their values four months ago, it is estimated.

The continued and spectacular improvement in many lines of business since early in March, while most significant and encouraging, is causing thoughtful men of the building industry to wonder when this pick-up is going to reach them by bringing about a resumption of home building on an extensive scale.

It is generally acknowledged that there is an immense piled-up potential of home building need. Authorities on Jan. 1 estimated this accumulated "back log" at seven billion dollars. It has increased two billion since then, making a nine billion dollar housing job that is now facing the building industry—enough to absorb the entire plant capacity of the manufacturers of building materials and equipment, and to put all building craftsmen back to work!

An increase in residential contracts is noted, with May home building a million dollars ahead of May of last year, and the first two weeks of June showing \$14,516,000 as the value of residential contracts for 37 states, reported by the F. W. Dodge Corporation.

While this shows an increase at the rate of \$6,000,000, or 26 per cent, over June, 1932, it indicates that total residential contracts in June were less than one-eighth of what was a normal June business in such years of prosperity as 1927.

When the factors hold-

ing back a revival of home building are studied we find "lack of financing" looming up as the first big obstacle. The customary sources of home mortgage money—the building and loan associations, the insurance companies, the savings banks and the private investors—have all been either unable or unwilling, in the recent past, to advance funds for needed new homes or for remodeling.

The federal government has wisely come forward, first with the Home Loan Bank System and now with its auxiliary, the Home Owners' Loan Corporation, to assist in the home mortgage field to the extent of refinancing and renewing existing home mortgages that are in default or which cannot be renewed. Two billion dollars will presently be available for this purpose; and this fund, if properly administered, will do more to clear up the distressing home mortgage situation, making mortgages liquid and salable and so reopening again to home builders the stream of private and institutional home mortgage funds, than any other measure in the Administration's entire program of industry revival.

There has been, to mention a second obstacle, an attitude on the part of bankers and other mortgage interests that the country is overbuilt, and that the vacant houses, apartments and stores must be much more fully occupied before loans can safely be made for additional building. This is unquestionably too conservative a view. It overlooks the changing tastes and needs of the American people, and the fact that there is no oversupply—rather there is, in many places, a shortage—of modern living quarters and of good small homes at a low price. However, the vacancies are now disappearing! With the re-employment and better income which has already come about from the upturn in general business, families that were "double up" are already unscrambling, and the vacant apartments and houses are being taken up.

So it would seem that the two big obstacles to home building activity are fading out and that, if present trends continue, "lack of financing" and "surplus of vacancies" will soon only serve as an excuse for those who do not care to get out and hustle for business.

Homebuilding Continues Increase

Residential contracts reported to the F. W. Dodge Corp. for the first half of June (13 business days) total \$14,516,000 for the 37 eastern states. This compares with \$11,558,100 for the same period last year, a gain of approximately \$3,000,000 for the first half of June, indicating a probable total for the entire month of \$6,000,000 in excess of last year.

May residential contracts exceeded those of May of last year by \$1,000,000. June is surpassing last June by \$6,000,000. Last year residential contracts were declining steadily. This year they are on the increase with present indications that June went ahead of May by \$2,500,000.

BUILDING INDUSTRY WILL BENEFIT FROM \$

Operations of New Agency Will Take Distressed Home Properties Off the Market, Restoring to Former Owners

THE "Home Owners' Loan Act of 1933" was signed by the President on June 13. It provides emergency relief to home owners on their defaulted mortgages and for refinancing expiring mortgages. It will encourage new home building, since builders of new homes have found that their worst competition during recent months has been the old home in distress because of the inability of the owner to keep up his mortgage payments or to renew his mortgage. These foreclosed properties have been priced so low as to prevent the sale of new homes even at present economy prices. The new governmental loaning agency set up under this Act is designed to correct this condition by coming to the relief of home owners and helping them to keep their homes.

The Act directs the Federal Home Loan Bank Board to create a Home Owners' Loan Corporation to be capitalized at \$200,000,000. The Corporation is authorized to issue bonds in an aggregate amount of \$2,000,000,000, to be used in exchange for home mortgages and advancing cash for certain purposes in connection therewith. These bonds are to mature within a period of not more than eighteen years from the date of their issue, bearing interest at a rate not to exceed 4 per cent per year, and are guaranteed by the United States as to interest only.

Rush of Applicants

An indication of the popular appeal which this new mortgage relief has with the home owning public is the flood of applications immediately received by the Federal Home Loan Bank Board. The first two days after the Act was signed six thousand inquiries concerning the filing of applications came in.

Chairman William F. Stevenson explained on June 16 that the Board had just begun its task of setting up the machinery for carrying out the new Act, and that this set-up would include the appointment of Managers or Agents in each of the forty-eight States. These officers of the Corporation, in turn, will select assistants and appraisers to handle loan applications in the respective localities. Application forms, Chairman Stevenson stated, together with an explanation of the law, will be printed and distributed as soon as the Corporation organization machinery can be set in motion.

Munger Foresees Good Results

The far reaching effect which this home mortgage help is apt to have on building and on general business was visualized by Royal F. Munger in the Chicago Daily News of June 24.

"In the terrific flood of legislation that has swept through congress in the last few months," he stated, "anything less than a complete revolution in the methods of American government has been almost too small to be considered. Even the mortgage bankers were late in awakening to the fact that the Home Owners' Loan Corporation, set up under the home loan bank boards, has control of as much money as has been used by the whole

Reconstruction Finance Corporation in the relief of the banking situation of the country.

"They are awake now and are realizing that the relief of pressure on mortgages is going to be the biggest financial factor in Chicago in the next year.

"While the measure is designed for the relief of the individual home owner, it cuts right to the heart of the problem in a city which suffered tremendously, even to the point of tax difficulty, in the depression shrinkage of real-estate values.

"Clear up the mortgage situation, or make mortgages liquid and salable, and the remaining area of frozen finance will begin to thaw like an iceberg in the Gulf stream. Even some of the closed banks, loaded to the guards with frozen mortgages, would have something which could be sold to raise funds and pay added dividends to the long-suffering depositors."

Home Loan System Strengthened

This new legislation in benefit of home owners will accomplish its purpose by strengthening of the Federal Home Loan Bank System, by creation of the Home Owners' Loan Corporation for the present emergency, and by organizing Federal Savings and Loan Associations for permanent financing operations in those counties not now served by a local savings and loan institution.

The wisdom of that portion of the Act which sanctions the continued operation of the Federal Home Loan Bank System is seen in recent reports from the Federal Home Loan Bank Board. Loans authorized by the Home Loan Banks amounted on June 26 to \$56,856,872. Membership stood at 1261 loaning institutions representing 117,420 shares of capital stock, having a value of \$11,742,000.

How Bonds Will be Exchanged for Mortgages

To provide an adequate margin of security behind its bonds the Home Owner's Loan Corporation is required to limit its exchange of bonds for mortgages and other obligations of the home owner to 80 per cent of the present value of the real estate as determined by the Corporation's appraisal. In the case of direct cash loans on unencumbered property for payment of taxes, assessments and repairs the limitation is 50 per cent; and in direct cash loans to refinance small mortgages the limitation is 40 per cent.

The two billion dollars of Home Owners' Loan Corporation Bonds will have a number of attractive features, according to Louis K. Boysen, mortgage banker, Chicago, assuring their stability and marketability, among which are the following:

(1) While in the beginning there probably will be no general offering of the bonds for sale, there will be a gradual absorption by investors in exchange for mortgages. As these bonds will be acquired in small quantities and widely distributed, there will at no time be a flood of them on the market. Consequently, it is prob-

\$2,000,000,000 HOME RELIEF ACT

Tax Free Bonds with Interest Guaranteed, to be Offered in Exchange for Home Mortgages—Ownership Encouraged

ably safe to presume that a market price of 85 to 90 will prevail in the beginning, gradually increasing to a par or premium price as the bonds approach maturity.

(2) Debtors to the Home Owners' Loan Corporation may make payment of principal or interest in whole or in part by tendering the Corporation its own bonds at face value. This will help to maintain a permanent market for the bonds.

(3) The 4 per cent interest is free from all ordinary forms of taxation, including normal Federal income tax, personal property tax and State income tax. Trust companies will probably recommend the exchange of mortgages for these bonds, particularly in the large trust estates where the question of taxation is becoming more and more serious.

To qualify under the exchange plan the first mortgage must have been executed and recorded prior to the Act. The dwelling must be one adapted for occupancy by not more than four families, used by the owner as a home or held by him as his homestead, and valued at not to exceed \$20,000. Loans by the Corporation will be limited to a maximum of \$14,000, or 80 per cent of the value of the real estate whichever is the smaller.

Where a mortgage meets the foregoing qualifications the Corporation may negotiate with the home owner and the holder of the mortgage along the lines of the following four illustrations:

Illustration No. 1

Taxes and assessments are paid to date and the property is in good repair. The principal amount of the mortgage is \$11,500, the loan having been made originally on a valuation of \$20,000. Defaulted interest of \$500 has accumulated, making a total of \$12,000 due under the mortgage. The Corporation now appraises the property at a depreciated value of \$15,000, on the basis of which it will offer bonds to the mortgage holder amounting to \$12,000, or 80 per cent of the present property value. In return for the bonds the mortgage holder will assign his mortgage to the Corporation and the Corporation will enter into a new arrangement with the home owner whereby the latter will pay off the loan of \$12,000 according to an amortization plan calling for monthly payments sufficient to retire the interest and principal within a period not to exceed 15 years, at a rate of interest not to exceed 5 per cent.

Illustration No. 2

Taxes and assessments have accumulated to the amount of \$500 and the property needs repairs costing \$500. The amount of the mortgage is \$10,000, the loan having been made originally on a valuation of \$20,000. Defaulted interest of \$1,000 has accumulated, making a total of \$11,000 due under the mortgage. On the basis of the Corporation's depreciated valuation of \$15,000, it may now offer to acquire the mortgage by paying out \$1,000 to cover taxes, assessments and repairs and by turning over to the investor \$11,000 in bonds. It will be noted that the cash payment of \$1,000 and the \$11,000 in bonds total \$12,000, or 80 per cent of the present property value, which is the maximum percentage permissible under the combination cash

and bond arrangement. The home owner's new mortgage is \$12,000, payable on the amortization plan noted in the first illustration.

In the foregoing two illustrations it will be noted in each case that the investor has benefited by avoiding the trouble and expense of foreclosure on his defaulted mortgage and by acquiring a liquid, tax exempt investment paying 4 per cent for eighteen years without the danger of default during that period. He has not had to suffer loss of his principal or interest in either case due to the fact that he has received bonds, the total face value of which equals the amount due under his mortgage.

In the following two illustrations the mortgage holder is required to take bonds of less amount than his mortgage, due in the first case to the fact that the property has depreciated in value to a greater extent than in the prior illustrations, and due in the second case to the fact that his margin of security has decreased as the result of tax and assessment accumulations and the need for repairs.

Illustration No. 3

Taxes and assessments are paid to date and the property is in good repair. The amount of the mortgage is \$11,500, the loan having been made originally on a valuation of \$20,000. Defaulted interest of \$500 has accumulated, making a total of \$12,000 due under the mortgage. The Corporation now appraises the property at a depreciated value of \$13,000, on the basis of which it will offer bonds to the mortgage holder amounting to \$10,400, or 80 per cent of the present property value. The home owner's new mortgage is \$10,400, payable to the Corporation on the amortization plan previously noted. In this case the home owner's new mortgage is \$1,600 less than the amount due under the old mortgage. This is in accordance with one of the aims of the Act, which is to effect a composition between debtor and creditor in cases where the debtor would otherwise lose practically all his equity.

(Continued to page 49)

QUICK ACTION PROMISED

On June 22, the Federal Home Loan Bank Board at Washington, D. C., issued the following statement:

It is the hope of Chairman William F. Stevenson and members of the Board to set up within ten days or two weeks the machinery of the "Home Owners' Loan Corporation," authorized in the Act approved by the President on June 13. The Board is proceeding as expeditiously as possible, considering that units must be created in 48 states and the District of Columbia.

Pending this, and the printing of rules and regulations and loans application blanks, the actual filing of applications must wait a few days. Meanwhile the President of the United States has issued a statement reciting that it will require a little while to set going the machinery to make the new law effective and asking mortgage creditors, and others with claims against home owners, "that they abstain from bringing foreclosure proceedings and that they abstain from seeking to dispossess the home owners who are in debt to them."

It is the duty and purpose of the Board to name a Manager, and his necessary assistants, in each of the 48 states and the District. Loan applications are to be handled through such local agencies, passed upon by attorneys and appraisers, and forwarded to the Home Owners' Loan Corporation in Washington for final review.

Home owners must be in distress and in need of emergency relief to come within the provisions of the new law. Applicants who wish merely to refinance their mortgage indebtedness, and are not in danger of foreclosures, should not make applications for Federal aid. Such aid can be extended only to those "who are unable to amortize their debt elsewhere."



At the recent Home Renewal Conference in Chicago, Professor Walsh gave a rousing defense of tested home building methods. The following article embodying his pointed remarks is of more than ordinary interest at this time—THE EDITORS

THE MODERN house, built by up-to-date but thoroughly tested methods and materials of construction is my subject.

By the term "modern house," I mean a combination of highly efficient and well-studied developments in materials and equipment. I am not referring to those boxes of hastily assembled materials, with long, horizontal windows, flat roofs and factory-like exteriors that have been widely heralded under the name "modern house," or the "house of the future" or even as "the new house for our mechanical age."

The type of modern house I mean is the product of generations of progress. It is the culmination of the tested knowledge of home construction and planning that we have available to us today. Home building has received the attention of many thousands of the best minds, and the methods that we have developed have grown with the changing demands of each generation.

It is difficult to believe that some one individual can come forward from the crowd of technical men in this

An Architect Tells Why Tested

country and invent a new and radically different type of house, built by such improved processes that all our accumulated knowledge will be scrapped. Yet in the past few years there have been plenty of candidates for this exalted position who have poured immense quantities of energy into this problem. In each case, the inventor seemed to be spurred on by ambition to find the one solution to make a house cheaper than any other, and thereby capture the market for American homes and become very rich in the process.

Some of these inventors have been honest enough to admit that that was their purpose, but others have cloaked their impulses with altruistic reasons! The commonest of such reasons has of course been that they were seeking the improvement of the awful housing conditions in this country. But when all is said and done, the picture is very alluring, that of being the originator of a model house that everybody wants to buy. What an industry it would be if it came about for some one city and group of individuals! What a calamity it would be to those architects, builders, carpenters, masons, electricians who are scattered throughout the land, and who after all are a substantial type of citizen in any community.

The point of view taken by those seeking to revolutionize home building methods for their own private gain and in hopes of getting control of the entire market or of setting up a great, and powerful industry, has been first to criticize our present methods of building. They have in many cases persuaded the public that the customary ways of building are obsolete. Building industry, they have described as the most backward of them all and in great need of being revolutionized.

One ardent inventor said to me that in approaching the problem of designing new homes for a new age, he assumed that if anything had been in use for a long time it probably was wrong. He went on the theory that accepted methods were merely hand-me-down ideas from ignorant generations of the past. Well I must admit that many of the proposed types of homes look as though they had been born from just such reasoning. Freak houses, they are, apparently existing for no other reason than to be different. A fine headline for the papers, they make, and their pictures create a sensation, as they pass on to oblivion with hundreds of similar monstrosities.

Don't forget that American builders, manufacturers of building materials and architects have advanced the science of building in the past 50 years to a degree equal to all the progress made during the previous 4,000 years, and it is ridiculous to think that any one man or any small group is going to provide us with the one and only solution of the modern house, that will be head and shoulders above that which can now be con-

Red Home Building Methods Are Best

By H. VANDERVOORT WALSH
Professor of Architecture, Columbia University

structed today by the materials already on the market.

Very often in print, we read statements about the backwardness of our methods of building; how, for instance, we are laying bricks in the same old way they did in Egypt 4,000 years ago. Even such exaggerated statements as this are to be heard, that houses are built with the same old materials, in the same old way, and that what we need is to completely revolutionize home-building methods and turn out houses from factories with all the efficiency of mass-production methods developed in other industries. Say some of these critics of the building industry, "Look at the rapid technical development of the automobile in 30 years and the slow changes that have taken place in home construction methods."

All of such arguments sound reasonable to the public that is not informed of the facts. And what are they?

First—There have been hundreds, even thousands of plans drawn up on paper for building standardized houses at lower cost, but none to date has been commercially successful. None has been able to compete with houses built by the common and tested methods of construction, no matter how efficient.

Second—The houses built by the tried and tested methods are essentially factory-built and standardized houses. Continual changes have been made in making materials to develop products that required less and less fitting and cutting at the site. The size and weight of the standard units have been studied for transportation and easy handling. The principles of pre-fabricating the house have been applied just as far as practical operations would permit, and thus little room has been left for the success of the various so-called factory-built houses. This procedure is continuing and improvements are to be noted all the time. More and more the average house is becoming an assembling plant of selected standard units. Thus efficient methods are being developed slowly and are being tried out by experience.

Now when I talk about the modern house, I have in mind one planned to satisfy the living requirements of our day, and one constructed of materials which are modern. Manufacturers have been, for selfish reasons perhaps, keen to improve the materials and equipment offered by them to the home-builder. Some skeptics may sneer at this statement of mine, but I know that it can be justified when a broad view of the whole situation is taken over a period of years. Within the last 25 years great technical advances have been made in the study of the chemistry and the physical properties of materials of construction. Much of this study has greatly improved the products and the knowledge of their application. Building material trade associations have done much to assemble information about their prod-

TEST OF TIME IS NEEDED

"Too radical and novel changes are in most cases full of troubles yet to be found," says Mr. Walsh.

"Changes should be made step by step—built upon experience gained from actual use.

"The fact that we still use wood, brick, stone, tiles and other old materials is not evidence of the backwardness of the building industry but proof that these materials give results that no new substitutes have been able to show."

ucts and educate the industry in its use. We have as a result, in our homes today, better lumber, better flooring, better concrete and plasters, better heating plants and plumbing equipment and many other things.

We have also a better group of builders, architects and laborers to erect these houses than we did only a few years ago, when, due to the great boom, every Tom, Dick and Harry went into the building industry. Those who are in it yet are better qualified to carry on the building of our homes. The incompetent workers and the broker type of builder have been forced out by lack of work. A renewal of home construction will see a greatly improved product at lower costs, because the industry has been purged of unqualified workers.

So with better technical skill and better work from labor, the building of the home today by tested methods cannot be held up to the same criticism and ridicule that it received during the boom period. As the success of the modern house depends upon the skill of those responsible for its design and assembly, we can see that improvements like this are important. We need intelligent leaders to bring out the great possibilities in home building, for manufacturers have been so active in widening the choice of their standardized products that more ability than ever before is needed in selecting the parts to make a harmonious and attractive home.

The real qualities of building materials and mechanical equipment cannot be determined by laboratory tests alone. The test comes in the application. New devices and

(Continued on page 48)

Regional Offices to Handle Program

Federally Financed Construction Totaling
\$3,300,000,000 to Cover Entire Country

THE National Industrial Recovery Act signed by President Roosevelt on June 16 provides for the greatest peace time construction program ever undertaken in the United States. Its purpose is the immediate reemployment of as many as possible of the men of the construction industry on publicly financed work that is either "self liquidating" or clearly in the public interest.

A fund of \$3,300,000,000 is provided for this purpose to loan to states, local governments and for public works under the several federal departments. \$400,000,000 will be used for highway construction; \$50,000,000 for forest and park roads; and \$25,000,000 for "subsistence homesteads." Engineering and building work of many kinds will be included.

Hugh S. Johnson, former member of the War Industries Board, has been appointed by the President as Administrator of the Recovery Act, and is devoting himself to Title I, the industrial control section.

Donald H. Sawyer, formerly Secretary of the Associated General Contractors of America and Director of the Federal Employment Stabilization Board, has been named temporarily to the position of federal administrator of public works (Title II of the Act).

A carefully selected list of federal projects ready to go ahead immediately has been compiled, totaling slightly less than \$400,000,000. The items on this list were selected on two considerations: that the project could be started immediately, and that it was sound as a public investment, i.e., that it would not increase the expenses of government. Only a small number of public buildings of the post office type were included.

Washington news dispatches of June 26 carry the information that Public Work Administrator Sawyer has called upon the Reconstruction Finance Corporation for a list of construction projects which the corporation was unable to finance because of legal technicalities.

To Accept R. F. C. Investigation

Mr. Sawyer explained that he intends to salvage the expenditure made by the government in investigating such projects under the Reconstruction Finance Corporation setup. The public works bill, he pointed out, eliminates the "self-liquidating" requirement, so that projects found worthy by the corporation but barred from loans because of that requirement are eligible for consideration under his administration.

Included in the list of projects, which was reported to involve approximately 100 million dollars, is the application filed by the Chicago sanitary district for a loan with which to prosecute the sewage disposal program ordered by the Supreme court. Several other large projects, including New York tunnels and large bridges in various sections of the country, are also included.

Large importance is attached to state and city public works. A complete list is being compiled of works ready for construction. A call has been made on governors, mayors and other local executives to develop lists of ready work, on the basis of stated priorities (ability to start work at once; providing work at points of great-

est unemployment; spreading work over a wide territory; reaching as many crafts as possible).

Simultaneously, complete skeleton organization plans for the operating staff of this division have been worked out. In describing this organization, The Engineering News-Record states that the controlling objective set here was to decentralize authority and function in fullest measure, and thereby to avoid all danger of bottle-necking the operation of the act in reviewing offices. The characteristic feature of the organization is a group of 47 district administrators, generally one to each state. The office of each district administrator will be a completely functioning organization, with its own financial, legal and technical advisers, accountants, inspectors and the like. To relieve these offices of the burden of disbursing responsibilities the plan was adopted of appointing local disbursing offices of the Corps of Engineers, U. S. Army, as disbursing agencies, making payments on the vouchers of the district administrators.

Regional Groups

Auxiliary to this direct-line organization are ten regional or divisional groups comprising a field engineer, and a division examiner in the Washington office serving the purpose of promoting and expediting. These are auxiliary to the direct operating system of district administrators and are not interposed between the district offices and the chief administrator. A further auxiliary is a housing division, reporting direct to the administrator. Another is a division of private projects.

Under the system thus set up and now going into operation, the district administrators are direct representatives of the chief administrator and exercise his full power. In other words, subject to the veto by the administrator alone, the district administrators make all the actual decisions and carry out all contracting and supervision as well as approval of the technical, financial and legal details of projects in their territory. They control all advances. The system is keyed to speed and expedition and to quick adjustment of legal, financial and technical complications.

Under the remarkable powers conferred on the President and the chief administrator by the Recovery Act, public works may be financed wholly or in part, or may be both financed and built by the administrator. Grants of aid not required to be repaid may be made to public authorities in an amount not exceeding 30 per cent of the cost of labor and materials. The policy decided upon by the President under the terms of the act is to make no differentiation between public bodies as to the price of their bonds accepted by the administrator, all bonds being accepted at par. A uniform interest rate will be fixed, assumed for the present at $3\frac{1}{2}$ per cent.

Under the same provisions the grant may be used to reduce the bond obligations of the public authority or may, in part, be used to cover interest and amortization during the first years after the completion of the project.

The administrator also may build a project under agreement with the local government to purchase the project on installment payments after completion, or he may lease the project to the local government.



Photo by Mott

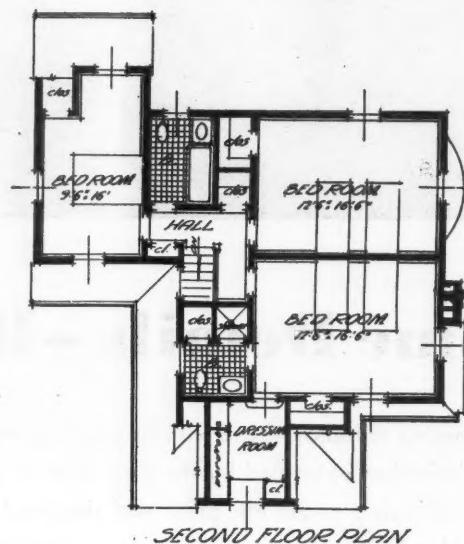
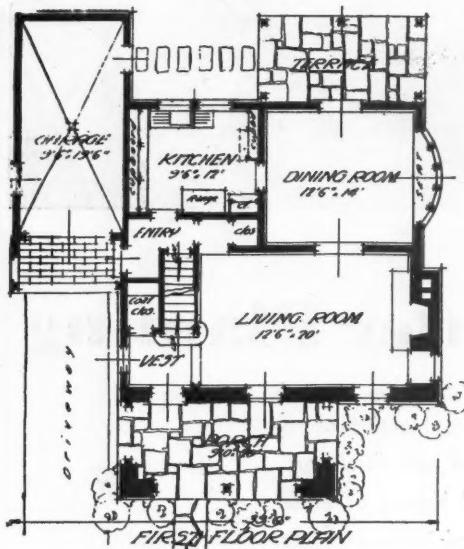
Better Home Details — Better Planting

The charming entrance above with its carefully worked out architectural details is further beautified by the right kind of garden and shrubbery. On the following pages are other well designed small homes of equal charm, showing the latest ideas in home building and improvements.



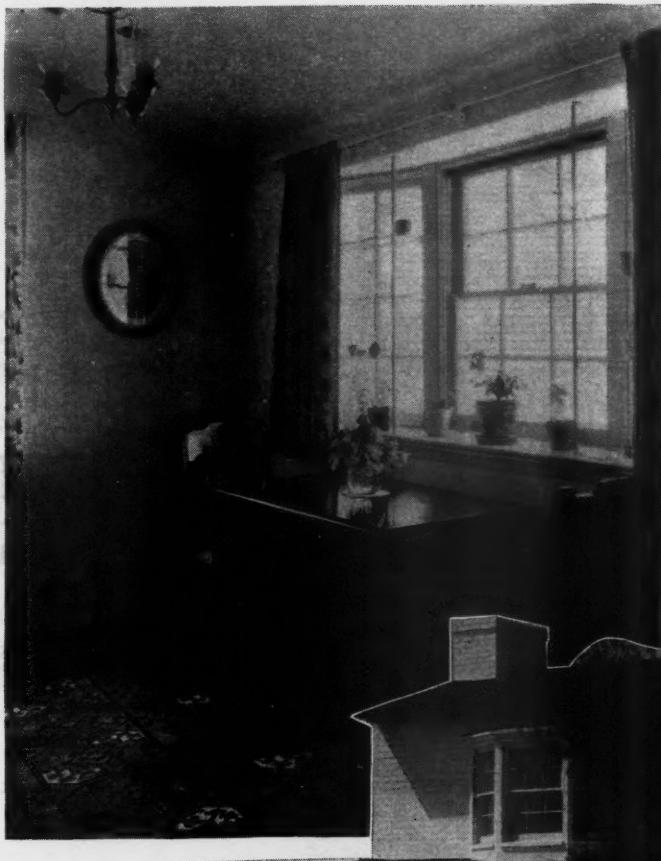
A Garden Suburb Home in New Jersey

R. C. Hunter, New York, Architect; Lethbridge Construction Co., Builders



THE MODERN TREND in home building is illustrated by this newly completed home in Garden Suburb subdivision, Hackensack, N. J. The interesting use of wide siding and stone in the exterior is especially good and suits the locality.

ANALYSIS of the floor plan shows this is not a large house but has fine living accommodations and many especially attractive details. Space is economically used. Cost key is 2.170
—150—780—34—28—19.

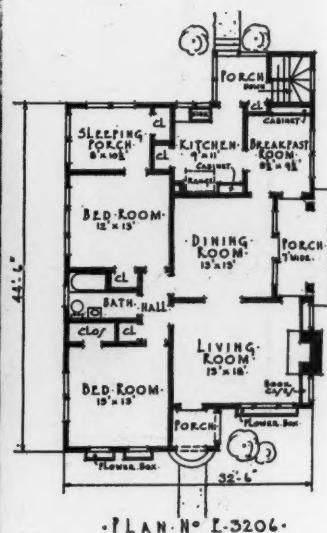


Whitewashed Brick Used in California Bungalow

H. Roy Kelley, Los Angeles, Architect

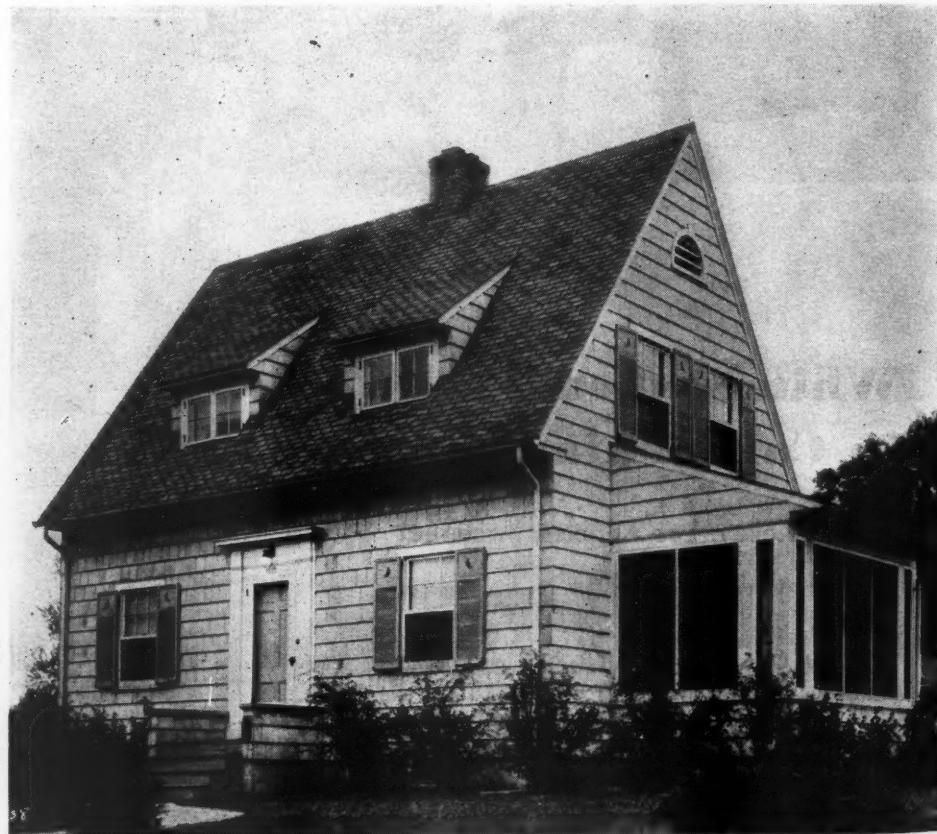
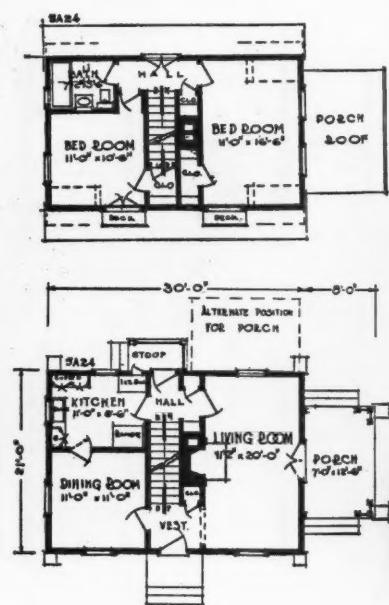
THIS IS A ONE-STORY HOME located on a hillside in which the garage entrance is handled with unusual skill and success. One of California's leading architects, Mr. Kelley, has produced a small house of great charm and has taken full advantage of the site. The combination of whitewashed brick and stucco is effective. The Cost Key is 1.919—249—0—0—24—27.





Two Frame Homes with Practical Floor Plans

THE SHINGLE EXTERIOR of this practical house gives it charm, and details give beauty at low cost. The floor plan is a practical type that has proved its value. Design No. 5-A-24, the Architects' Small House Service Bureau, Inc. Cost Key is 1.340—102—630—27—17—14.

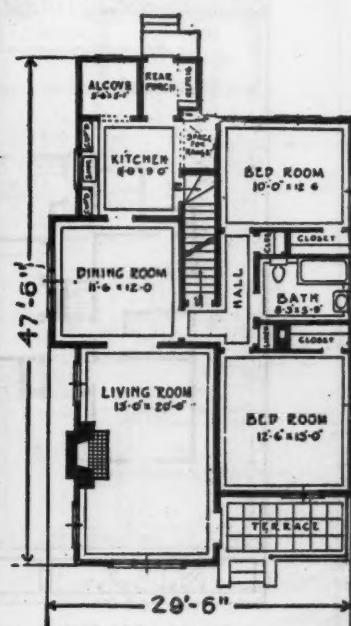
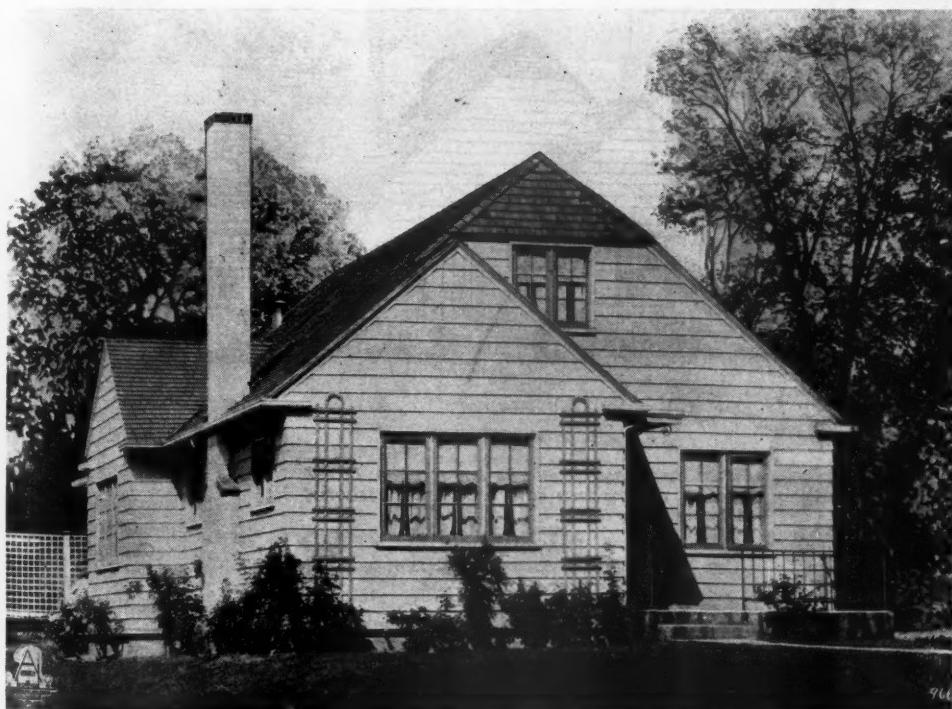




Low Cost Bungalows Meet 1933 Demand

THE SHADY PORCH at the left of the entrance is an attractive feature of this brick bungalow. The door opening from this porch onto the spare bedroom makes the bedroom available for renting purposes, or for use by an invalid who can be wheeled out onto the porch. Design from R. M. Williamson. Cost Key is 1.703—188—1376—58—22—25.

THE HOUSE BELOW is one of the most popular of American small home bungalow types. Study of the floor plan shows why it is popular,—the open terrace with its wrought iron rail, 20-foot living room with fireplace, three sets of windows in living room, dining room with a bay, well arranged kitchen. The dining alcove and rear porch are two added attractive features. Design No. 5-E-4. Architects' Small House Service Bureau, Inc. Cost Key is 1.372—154—1130—48—18—17.



OF COLONIAL TRADITION

A charming conventional bungalow with a simple layout. The floor plan reveals roominess and the general excellence of the home.

DIMENSIONS
Size of Main Building 30'0" x 33'3". Size Over All 36'0" x 36'6". Ceiling Height 1st. Floor 8'6". Ceiling Height Basement 7'0". Total Cubic Contents 12500 Cu.Ft.

1006-C **A FIVE ROOM HOME** **N.P.S.**

TWO IDEAS FOR SAME PLAN. NATIONAL PLAN SERVICE. DESIGN NO. 1006-C. COST KEY IS 1.109-138-926-39-17-14.

Alternate Elevation - Plan 2.

FLOOR PLAN (Left)

- FULL ROOM
- CHAMBER 110 x 80
- CHAMBER 110 x 80
- BATH
- HALL
- CLO
- KITCHEN 100 x 90
- HEATER ROOM
- BOOKS
- LIVING ROOM 150 x 130
- DINETTE 76 x 16
- CLO
- CLO
- HALL
- CLO
- CLO
- STOOP
- 1012

COLONIAL —
Two Designs For One Floor Plan.

Either style is appropriate for any location. Do not overlook the modern conveniences so essential to modern day living.

DIMENSIONS
Size Of Main Building 34'0" x 33'6"
Size Over All 35'0" x 36'0"
Ceiling Height 8'4"

Total Cubage 12750 CU.FT.

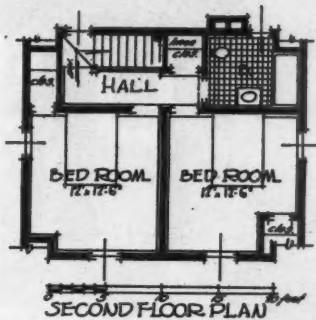
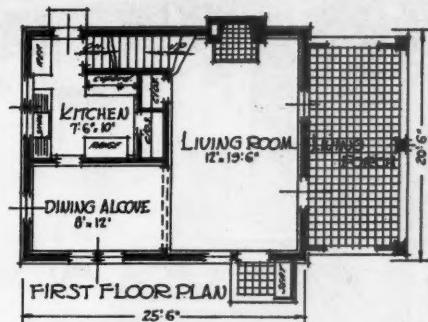
N.P.S. **A FIVE ROOM HOME** **1012-C**

A SMALL COLONIAL BY NATIONAL PLAN SERVICE. DESIGN NO. 1012-C. COST KEY IS 1.217-138-912-39-15-13.

Two Popular Small Homes in the \$4,000 Price Range



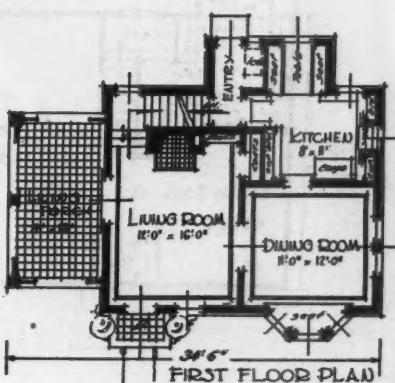
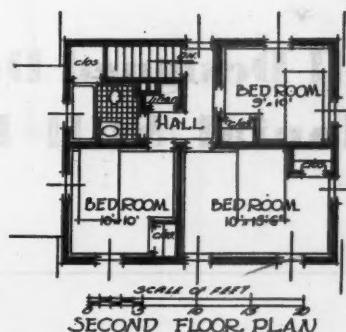
THE TRIM LITTLE DUTCH COLONIAL at right provides ample space for the small family. It is an exterior of modern, attractive style applied to a floor plan that cannot be beat for practical use. Design No. B-55; 13,000 cu. ft. Cost Key is 1.428—118—611—27—21—14.



R. C. HUNTER, Architect,
New York City



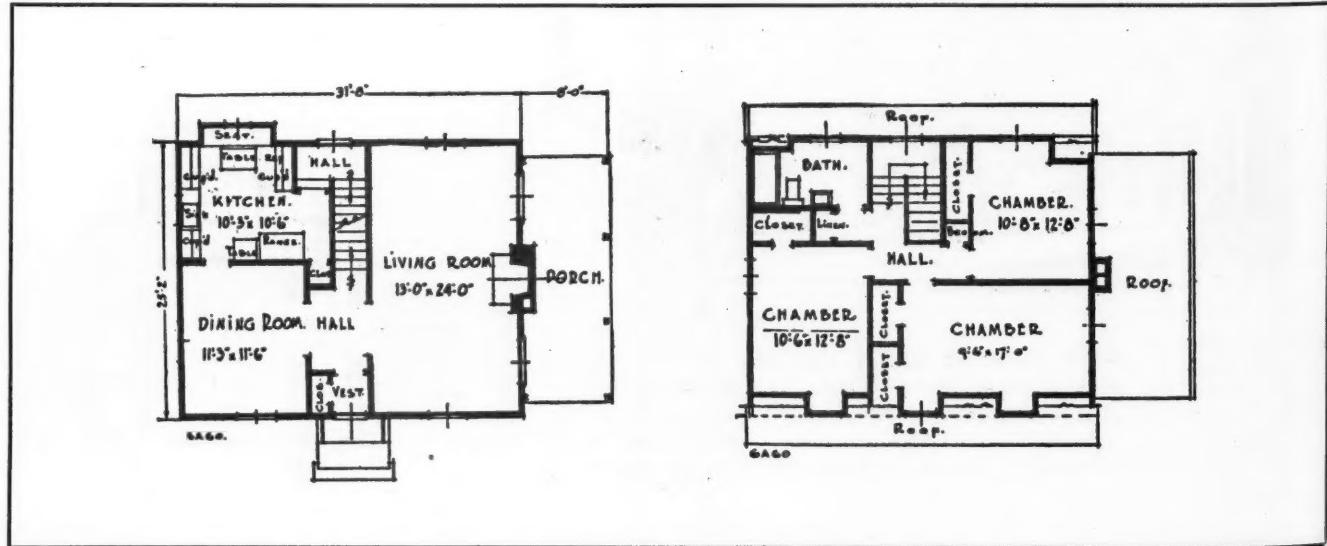
WITH ITS APPLE GREEN SHUTTERS and side wall shingles painted white, this house looks particularly well on a wooded plot. Although it is a very small house, it provides great livability and charm. Design No. A-113; 15,800 cu. ft. Cost Key is 1.248—104—523—23—19—12.

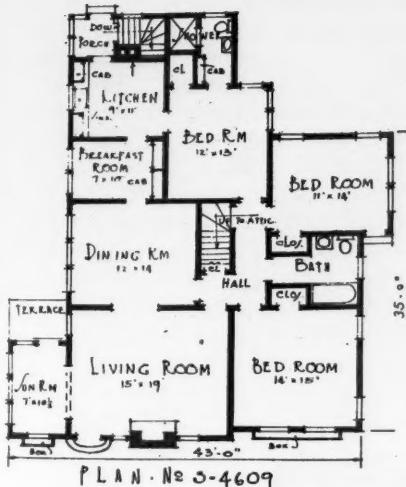




Well Designed Dutch Colonial Still Best

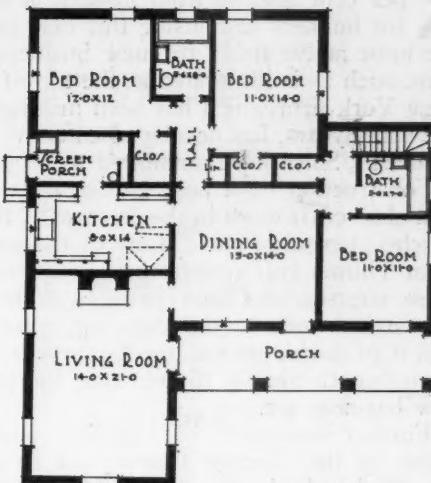
FOR GETTING THE MOST out of a house, the quaint Dutch Colonial shown above is still one of the best on the market. The center hall plan is characteristic of this house and is good. The long living room is a splendid feature. Waste areas are avoided in the plan, adequate lighting and ventilation are given in each room, the roof curve is graceful and attractive. Design No. 6-A-60. Architects' Small House Service Bureau, Inc. Cost Key is 1.705—116—796—34—20—17.





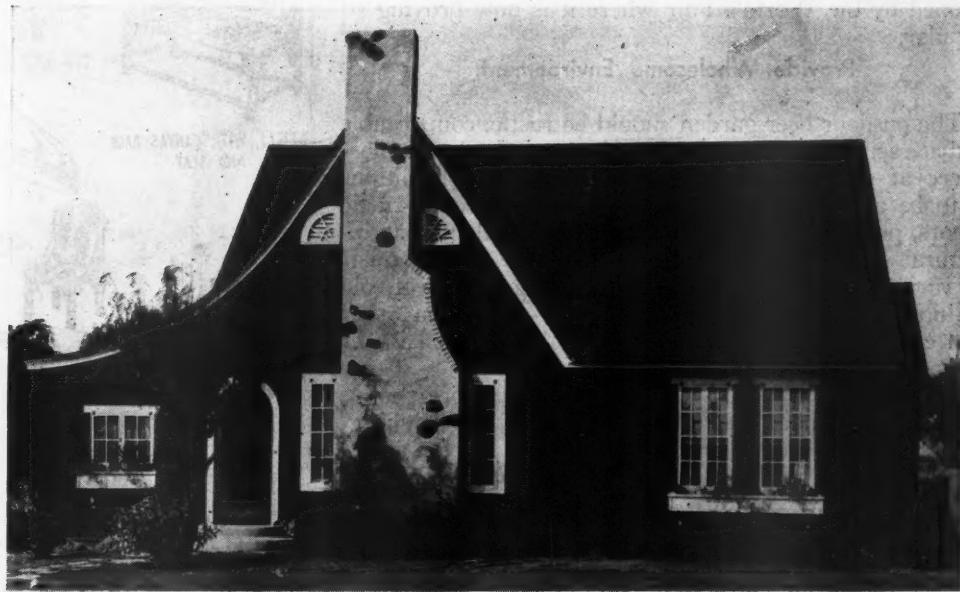
California Type Is Well Liked

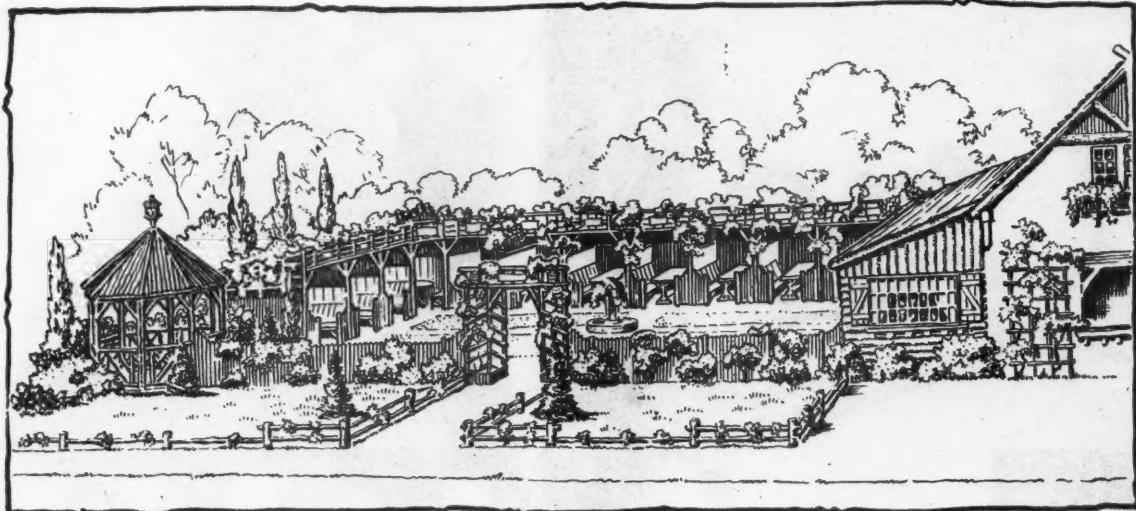
THE HOUSE ABOVE is a brick home of a type popular in California, and it has many features to recommend it. The floor plan is one that has proved very successful in this climate, and the open porch is highly desirable. This is a small house with much living quality. Designed and built by De Luxe Construction Co., Los Angeles. Cost Key is 1.707—166—0—0—17—19.



Striking Entrance

THE SWEEEPING GABLE, circular doorway and large stucco chimney make a striking entrance for this house with shingle exterior. Architecturally, it is the type that attracts attention and has the appearance of a large home. The sunroom at the left is an unusual and interesting feature. Design from R. M. Williamson. Cost Key is 2.078—194—1719—71—27—26.





Building Business In Beer Gardens

REPORTS from those states in which the sale of 3.2 per cent beer is legal indicate a growing business for builders in housing this new industry. One of the most active fields for new business is in beer gardens, such as is illustrated at the top of this page. One New York firm which has been making rustic furniture for many years, has developed an active business in beer gardens. Sales have amounted to around 50 a day.

Construction of a beer garden calls for considerable first class craft work in the erection of the tables, booths, benches, pergolas, etc. Many of the owners of defunct Tom Thumb golf courses are considering transforming these courses into beer gardens. This offers a good source for work for builders and enterprising men will find it profitable to look up the owners of deserted Tom Thumb golf courses to see what the prospects for this new business are.

Further impetus to beer garden construction is being given by the Chicago Century of Progress which has literally hundreds of outdoor eating and drinking places of this type. Architects predict that the fashion of outdoor eating and drinking spots will be greatly developed by the World's Fair where it is now proving so popular.

Provide Wholesome Environment

The outdoor beer garden should be rustic, comfortable and attractive. A wholesome environment and an atmosphere of good cheer reminiscent of fine old traditions is to be achieved. This is done through use of rustic arbors, pergolas and attractive booths in authentic architectural style similar to those built and widely popular in various parts of Europe. The rustic tree seat, old fashioned covered well, foot bridge, combination arbor and entrance gate, are also features that fit well in the open air beer garden.

The builder is often of assistance to a prospective customer in making a careful survey of the neighborhood, to determine the probable patronage and the necessary size. The small beer garden seating 25 to 50 people may be a paying venture when it is planned and constructed on that scale. The larger types seating hundreds and even thousands call for a larger outlay but permit a greater return on the investment.

It is estimated by hotel and restaurant operators that the real volume of beer consumption places has not yet gotten under way. Many states have not clarified the laws on the subject and a large number prohibit the sale of beer entirely. The construction of hundreds of new drinking places and the modernizing of thousands of old restaurants, hotels, roof gardens, etc., is being held up pending the clarification of laws.

It is predicted that as soon as these laws are straightened out and with a greater return of prosperity, the volume of building work in creating new taprooms, grills, rathskellers, taverns and beer gardens for the handling of beer and light wines will mount into a very considerable and profitable business.



A few of the rustic pieces supplied by the Du Boise Fence & Garden Co. for beer gardens. Above is a 40x60 foot garden to seat 175 persons. Details of appropriate rustic furniture are shown.

MODERNIZATION

"which makes buildings of all kinds more cheerful, more livable and more salable"

In this section is presented the most important news, as well as latest developments or conditions affecting modernization of existing structures of all types, home and business property repairs, etc. Each time it will present specific examples of the wonders that can be accomplished through the intelligent use of modern materials and good craftsmanship.

Apartment—
Rural and
Commercial
Buildings

•
Individual
Homes

•
Community
Campaigns



Above:
Old stone structure at Johnson City, Tennessee, before modernization



At Right:
Same structure after modernization into a modern, livable home

"RENOVIZE RHODE ISLAND" IS

TWO THOUSAND volunteer workers have just canvassed the State of Rhode Island from border to border, bringing back millions of dollars in "Renovize" pledges as evidence of the business waiting for those who go after it. Chambers of Commerce, Rotarians, Lions, and other civic, business and social leaders and organizations endorsed the movement when, during the latter part of April, 1933, a steering committee of Providence business men called in Mr.

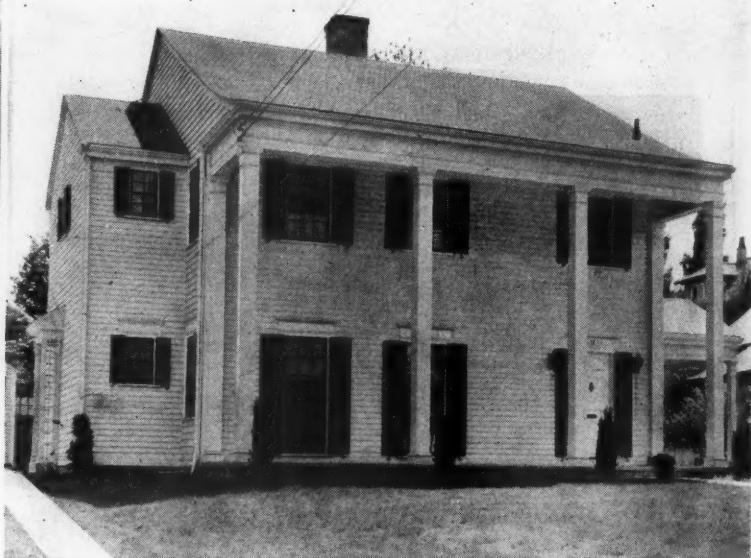
James W. Follin (of "Renovize Philadelphia" fame) to manage the Rhode Island drive.

Mr. Follin is Chief Engineer of the Philadelphia Federation of the Construction Industry and has taken active part in both the Philadelphia movement and renovize campaigns in other cities. He is a graduate professional engineer (University of Michigan), well qualified by past and recent experience for this kind of work, although renovizing is an avocation rather than a vocation for him.

The renovize idea differs from the usual modernization and home repair community campaign in only a few particulars; probably the chief difference lies in the fact that renovize pledge names are not revealed to local dealers, contractors or other interested parties. This makes it appear that renovize pledges will be more difficult to check and follow through, although the \$21,500,000 in pledges obtained in the Philadelphia



"UGLIEST HOUSE" RENOVIZED—The house shown above was so badly proportioned that people referred to it for years as "The Ugliest House in Providence." "It was eventually sold," writes John W. Hawkins in The Providence Sunday Journal, "and the new owner turned it around, renovated it—." The modern Colonial residence shown at the right is the result.



"RENOVIZING" CAMPAIGN PLANNED HERE

Providence News-Tribune April 20, 1933

"RENOVIZE" PLANS AWAITS APPROVAL

Providence Sunday Journal April 23, 1933

"RENOVIZE R. I." LEADERS ORGANIZE

Providence News-Tribune May 3, 1933

"RENOVIZE R. I." HEADQUARTERS OPENS

Providence News-Tribune May 8, 1933

ROOSEVELT BACKS STATE'S CAMPAIGN

Providence Journal May 9, 1933

RENOVIZE CAMPAIGN TO OPEN MAY 22

Providence News-Tribune May 9, 1933

The Newspaper Headlines

RENOVIZE PLAN VICE-CHAIRMEN NAMED

Providence News-Tribune May 11, 1933

"RENOVIZE" DRIVE INDORSED BY LIONS

Providence Journal May 11, 1933

"RENOVIZE" MEETING AT WESTERLY

Providence News-Tribune May 15, 1933

CHAMBER TO AID "RENOVIZE" DRIVE

Providence Journal May 17, 1933

WOMEN TO AID "RENOVIZE R. I." DRIVE

Providence News-Tribune May 17, 1933

ROTARIANS, LIONS INDORSE DRIVE

Providence Journal May 18, 1933

IS FIRST STATE-WIDE CAMPAIGN

drive early this year is now being followed up and checked by unemployed technical men. Similar activity is planned to follow the initial Rhode Island drive, to ensure the major share of the pledges being fulfilled. It is too early yet to say whether this method of checking pledge performance will be thoroughly successful; indications are, however, that a majority of the pledge makers keep their promises. As to whether renovize campaigns will be more successful than regular modernization and home repair drives is not particularly important because both attempt to accomplish the same results—induce citizens to put money into circulation by spending for needed repairs, modernization, new building, etc.; success in these local drives seems to be largely contingent upon the personnel involved.

Since the population of the entire state of Rhode Island is, roughly, but a third that of Philadelphia, it is obvious the "Renovize Rhode Island" campaign can-



Photographs by
courtesy of The
Providence Sun-
day Journal

not show as great a dollar volume of pledges as the third largest city. However, the first state-wide campaign will probably make a very respectable showing, regardless of ability of campaign managers to quote "unprecedented" totals. It is expected that this drive will initiate not less than \$3,000,000 in construction work, perhaps more.

In Philadelphia only 37 per cent of the total amount



"QUEEN ANNE" FARMHOUSE "RENOVIZED"—(See circle at left). This farmhouse with its unwieldy porch, misshapen bays, gingerbread cornices and—cupola!—was long an unsightly landmark near Barrington, R. I. It was renovated by removing the gingerbread, altering, etc., and converted into the semi-Colonial dwelling shown above.

Told A Day-to-Day Story

BOY SCOUTS AID RENOVIZE DRIVE
Providence News-Tribune May 19, 1933

EAST GREENWICH TO RENOVIZE
Providence Sunday Journal May 21, 1933

PAWTUXET VALLEY DRIVE STARTS
Providence Bulletin May 23, 1933

BISHOP HICKEY BACKS RENOVIZE PLAN
Westerly Sun May 24, 1933

EAST GREENWICH GROUPS INDORSE DRIVE
Providence Journal May 24, 1933

NARRAGANSETT STARTS "RENOVIZE" DRIVE
Providence Evening Bulletin May 24, 1933

E. PROVIDENCE RENOVIZE COMMITTEE READY
Providence Journal May 26, 1933

\$1,130,000 "RENOVIZE" JOBS PLEDGED
Providence News-Tribune May 29, 1933

GOVERNOR GREEN ACTIVE IN DRIVE
Pawtuxet Valley Times, West Warwick May 29, 1933

RENOVIZE SESSION TO BE HELD TONIGHT
The Woonsocket Call and Evening Reporter May 29, 1933

By telegram as we go to press: RENOVIZE RHODE ISLAND DRIVE HAS NOW PASSED THREE MILLION FIVE HUNDRED THOUSAND MARK STOP CURRENT ESTIMATES ANTICIPATE MORE THAN FOUR MILLION DOLLARS IN PLEDGES WILL BE SECURED

pledged covered residential work, the balance being for business buildings; in Rhode Island this ratio may well be reversed, for the majority of buildings in our smallest state are of frame construction, whereas brick is the accepted favorite in Philadelphia. Similarly, painting and carpentry will undoubtedly account for a greater percentage of the total in Rhode Island than in Philadelphia, where these two items made up but 29 per cent of the total. It seems likely that the same percentage of pledges will be credited to individual property owners in the Rhode Island drive as was the case in Philadelphia, where 62 per cent of the total dollar volume of pledges was obtained from individuals, the remaining 38 per cent coming from financial institutions, building and loan associations and business enterprises.

Regardless of the total amount of pledges secured, the campaign has the distinction of being the first statewide activity of this kind. Many cities have conducted campaigns, of which Philadelphia's involved the largest population; but it has remained for the smallest State in the Union to point the way for forty-seven others!

Makes Strong Appeal to Public

"The economic benefits of this campaign are manifold," says one "Renovize Rhode Island" circular. "Repairing and modernizing work can now be done at a saving of about 40 per cent under prices that have existed for more than fifteen years. However, there is substantial evidence that material prices are stiffening and if work is delayed too long, the property owner will lose the advantage of existing low price levels.

"Property in need of repair rapidly depreciates while property in good condition commands higher sale prices

and rentals. Experience has shown, definitely and positively, that unoccupied buildings can be reconditioned and modernized to profit."

Another appeal reads: "Every householder has been annoyed, one time or another, by things out of repair, by old-fashioned equipment, by dingy furnishings. 'Some day,' you have said, 'we'll repair that wobbly step . . . put on a new roof . . . add a second bathroom . . . build a larger porch . . . get a better heater . . . some day we'll paper and paint.'

"'Some day' is here! This is today's opportunity and it must be seized today; present low prices cannot last! Have your work done by any contractor or craftsman you prefer. You are urged to award the work to local firms, preferably those with which you regularly deal."

In addition to the usual arguments the Rhode Island campaign points out that ". . . authoritative studies of the Federal Reserve System clearly show that every dollar put into circulation multiplies 20 to 25 times in the period of a year. This means that if the Renovize Rhode Island Campaign brings back into the channels of trade three million additional dollars it will give rise to a gross annual amount of business totaling from 60 to 75 million dollars."

The manual for campaign workers, which follows the question-and-answer style of copy, contains twenty-six specific situations which may or probably will confront the canvasser, as well as general instructions regarding the worker's duties.

Splendid Co-operation of Newspapers

Newspapers throughout the State have given generously of their space and, as shown by the headlines reproduced in these pages, this has played no small part in the success of the Rhode Island Campaign. The Providence papers were first to get the story, of course;



A "Renovize" Canvasser At Work



Organization Chart "Renovize R. I." Campaign

but other daily and weekly publications in all parts of the State were quick to co-operate.

Early in the campaign the *Town Criers of Rhode Island*, a state-wide organization of advertising and publicity workers, undertook to handle all publicity and they can point with real pride to their part in the drive.

Yes! No matter whether the campaign is called a "Home Repair and Modernization Drive," "Renovize Campaign," or by some other descriptive term, it undoubtedly creates additional business. In many cases a pledge results in work being done which might otherwise be delayed for a year or two, or never done at all. The community (or state-wide) drive focuses public attention on "eyesores" which have been tolerated for too long a time. Perhaps there is no better way to clean up run-down and dilapidated sections of towns or cities than with such campaigns.

The cost, in most cases, is comparatively small; in Rhode Island the total cost will not exceed a fraction of one per cent of the three million dollars in pledges. The most elaborate campaign should not exceed 2 per cent of the dollar value of pledges secured.

In addition to the actual pledges secured and work executed for owners, thousands of dollars in repair work, modernization of existing buildings, and new building, is promoted by these campaigns. The fact that

neighbors on all sides are having porches fixed, buildings re-painted, roofs repaired, plumbing and heating plants overhauled, and so forth, exercises a wholesome effect on the owner who is untouched by usual community appeals. The Rhode Island Campaign was organized and started in the short span of only five weeks; results obtained have amply spoken for themselves.



James W. Follin

The man who was drafted to act as Executive Manager of the "Renovize Rhode Island" Campaign is the well known Chief Engineer, Philadelphia Federation of the Construction Industry; past president, Philadelphia Section, the A. S. C. E.; Advisory Engineer, Philadelphia Agency, third Federal Reserve District, R. F. C.; Vice-Chairman, Philadelphia Technical Service Committee; and instructor of graduate students at the University of Pennsylvania, specializing in physical and governmental problems of metropolitan city areas.



Unusual Window Display Used at "Renovize Rhode Island" Headquarters



**Repair, Remodel,
Restore at Today's
Bargain Prices!**

**RENOVIZE
RHODE ISLAND CAMPAIGN**
84 Westminster Street
GARAGE 2488
PROVIDENCE

GOOD FOR BUSINESS, TOO

Improve Your Property at the Lowest Costs in Fifteen Years

A CHECK-LIST OF SUGGESTIONS FOR MODERNIZING THE HOME

Reprinted by Permission of The U. S. Department of Commerce

BASMENT

Excavate cellar.
Build foundation footings and walls.
Provide drains tile around outside of foundation.
Apply waterproofing to walls.
Apply fire stopping around interior window spaces.
Paint walls to brighten them.
Lay basement floor.
Provide drainage facilities.

KITCHEN

Provide space for kitchen, etc.
Provide counter.
Install wall cupboards.
Install sink.
Install refrigerator.
Install range.
Install wall and floor coverings.

LIGHT & POWER

CHECK LIST OF SUGGESTIONS FOR

MODERNIZING

Business Buildings



CHECK LIST OF SUGGESTIONS FOR MODERNIZING Industrial Buildings



WILLIAM L. SHAW
General Chairman
HENRY D. BRADY
Industrial Rehabilitation Chairman
C. C. GROHOL
JOHN H. ALLEN
Dr. HORACE E. MCNICHOLS
Vice-Chairmen
County Administrators

1933

RENOVIZE RHODE ISLAND CAMPAIGN - 1933

Samples of the Printed Matter Used in "Renovize Rhode Island" Campaign

Four Remodeling Ideas

By ERWIN L. BROECKER
Architect

PLANNING to remodel a very ordinary house into a residence of charm and character is an experience fascinating to contractor and home owner alike. For them are the added interest and joy of exploring the many different possibilities of making over the house. There are any number of houses that can be evolved, using the same original as a starting point, each with its own particular charm to fit the owner's taste—and pocketbook. Illustrated on the page at the right are four houses, each quite different, all of which were designed with the same rectangular house as a basis.

See what a little imagination, together with paint, shingles, brick, stone or stucco can do to transform the very prosy square type house, of which there are countless numbers in every city, into a really distinctive inviting home. Figure 1 shows our typical box-like house, of no particular style or distinction, yet comfortable and soundly built. With its old fashioned front porch and scanty plainness it is far from being modern, yet a little ingenuity and study will give it a new lease of life.

Simplest and least expensive is the alteration shown in figure 2, resulting in a frame house of colonial character, having the intimate homey feeling of white clapboards and shingles used as a background for green shuttered windows. In this rejuvenation the clumsy front porch is removed, revealing the "face" of the house and admitting more light into the living room. The upper portion receives a covering of shingles over the old clapboards, creating a slight overhang, which gives the house a lower appearance, as does the terracing of the front lawn. The newly revealed front is enhanced by a simple colonial doorway and an inviting informal bay window, while the second story window sash are converted for small panes and framed with slatted shutters. A fireplace added to the living room calls for a new brick chimney, simple but well proportioned, and the house is completed by a side

porch, offering a view of the garden at the rear.

Figure 3 contemplates remodeling on a little more pretentious scale, carrying out the gracious formality of the French Manor house. Here again the porch is removed, and in addition, the roof lines are altered. Limestone trim in a four inch veneer harmonizes with a coating of grey stucco on steel lath, over the old clapboards. The upper windows are casement type with paneled shutters of weathered blue, and the lower French windows carry out the same treatment. The stone trimmed entrance is surmounted with an iron lantern. Roof dormers and the chimney pots on a new stone and stucco chimney are interesting details which give accent to the mass, as is the metal hood over the side entrance. A side porch in stone completes the ensemble.

The easy dignity of Georgian domestic architecture is suggested in figure 4, in which the exterior is veneered with a two inch brick made for just this purpose, forming a warm red background for the white window trim and shutters. A stately doorway with fan light above enlivens the quiet character of the facade and is balanced by the large first story window with a panel below, and full length shutters. The side porch is of cast iron with a metal roof. A simple gable roof and brick chimney carry out the quiet charm and homelike spirit of this reborn residence.

For those with a flare for things moderne, figure 5 offers possibilities of expressing a taste for contemporary design. Contrasting materials and plane surfaces lend an air of clean cut practical simplicity. The lower part of the house is veneered with brick to set off the stuccoed upper story, which extends above the eave line in a parapet. Large corner windows give a maximum of light and ventilation and are constructed with thin steel struts at each mullion, supporting the wall above. A simple entrance with a cantilevered metal portico breaks the plainness of the front wall while the low sloping hipped roof relieves the severity of the simple mass. Venetian blinds at the windows and flower boxes are interesting details which enliven this rather distinctive composition.

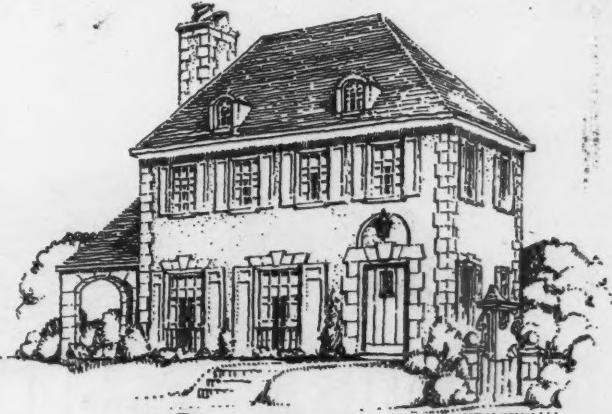
Other possibilities are legion, but the four outlined above serve to show that an old fashioned house is not just a house, but is the embryo of a number of interesting residences any one of which it is the owner's privilege to choose and to enjoy.



BEFORE AND AFTER views of a model modernizing job. The old roll rim tub, high tank closet combination, exposed lead piping, wooden wainscoting and other items are replaced in the model new bathroom by the latest matched fittings in modern design. Washable wallpaper, black rubber tile floor, rectangular mirror, two-way electric sockets, interesting modern details are effective.



② LEAST EXPENSIVE
REMODELED INTO
FRAME COLONIAL
WITH WHITE CLAP-
BOARDS AND
GREEN SHUTTERS



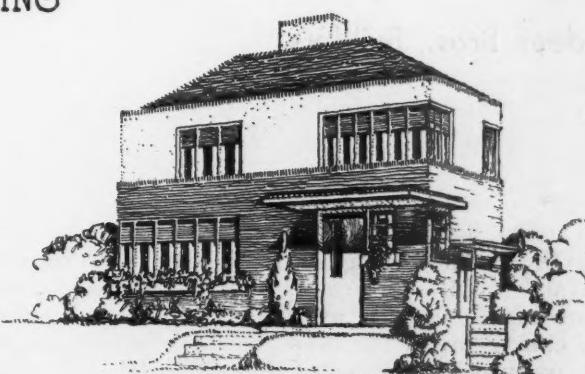
③ FRENCH MANOR STYLE
A POPULAR FORM
OF REMODELING
USING STUCCO
WITH LIMESTONE
TRIM



① THE OLD HOUSE
THOUSANDS LIKE IT NEED
MODERNIZING



④ NEW BRICK VENEER EXTERIOR
ADDED IN GEORGIAN STYLE



⑤ REMODELED IN THE MODERN
STYLE WITH CORNER WINDOWS

FOUR REMODELING SUGGESTIONS FOR A RECTANGULAR TYPE HOUSE

ERWIN L. BROECKER,

BATTLE CREEK, MICHIGAN

ARCHITECT



THE HOUSE OF THE MONTH

Norman Jardeen, Architect

Jardeen Bros., Builders

THIS charming English type home was recently built in Tacoma, Wash., and has attracted much attention. Outside walls are completely veneered with clinker brick; the deep shadow effects from the roof are made by the use of 24-inch Royal shakes laid double and 14 inches to the weather. Zinc bar windows and quarter-sawed oak floors are used throughout.

The triple archway leading from the entrance hall to the living room was very well liked. A studio window in the living room gives an attractive view.

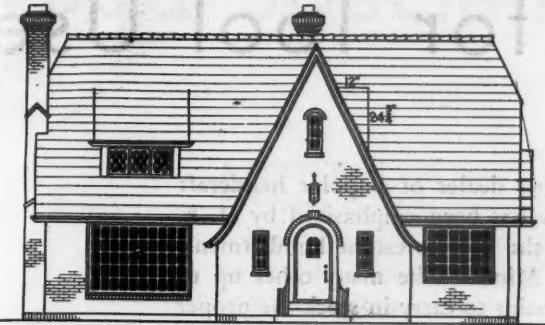
Other specifications include: Crown molded wood gutters, copper leaders; mahogany doors and trim throughout; hot air heating system with oil burner; bathroom has colored tile floor and base and built-in shower with tiled walls and ceiling. A liberal use of casement windows gives plenty of light in all rooms.

ESTIMATE OF COSTS

The following estimate of costs is based on prices of the best labor and material available, including a 14 x 20' brick veneer garage:

1. EXCAVATIONS. (Excavating and backfilling).....	\$ 130.00
2. CEMENT WORK—Including concrete walls, footings, cellar and garage floors, steps and side walls.....	410.00
3. MASONRY WORK—Including all brick work, flues and flue lining, clean-out doors, ash dump, throat and damper, wall ties and structural steel.....	760.00
4. CARPENTRY & MILLWORK—Including rough lumber, shakes, interior trim, flooring, doors, glazed sash, window and door frames, stairs, all cabinets, sanding.....	1,820.00
5. HARDWARE	140.00
6. LATHING AND PLASTER.....	290.00
7. ELECTRICAL WORK—Fixtures and wiring.....	220.00
8. PLUMBING—Piping, fixtures and fittings.....	395.00
9. HEATING—Hot air with oil burner.....	525.00
10. PAINTING & DECORATING.....	310.00
11. TILE WORK.....	285.00
12. SHEET METAL—Flashing and leaders.....	55.00
13. WROUGHT IRON RAILINGS.....	55.00
 EQUIPMENT—Roller screens \$65, electric refrigerator (not in contract); linoleum in kitchen, \$40.....	\$5,395.00
	105.00
	\$5,500.00

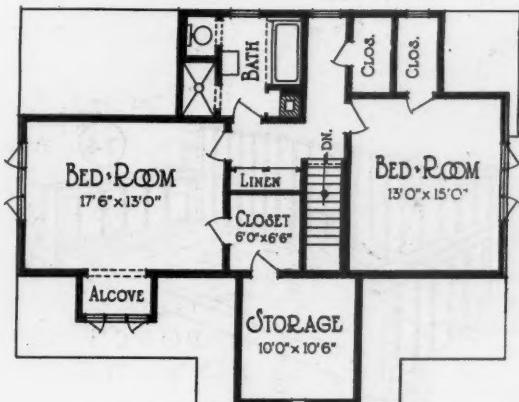
A very interesting exterior can be made by using 24" shakes laid double with 18" exposure instead of veneering with brick. This, combined with using a No. 2 grade of rough lumber instead of No. 1 which would not materially cheapen the house, allows a saving of \$400, bringing the cost of \$5100.00.



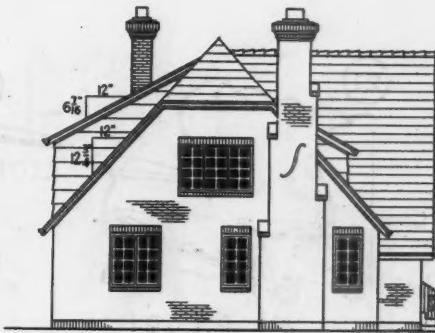
• FRONT • ELEVATION •



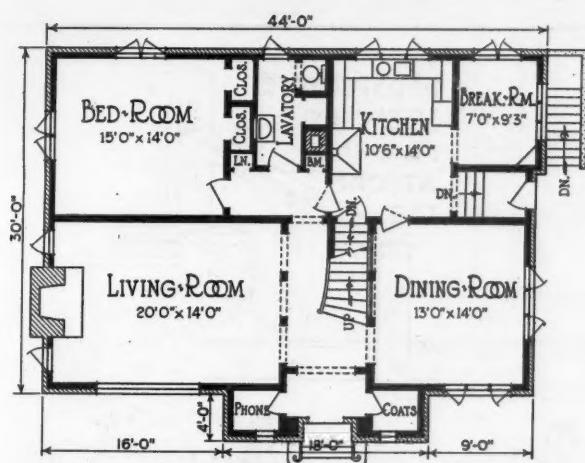
• LEFT • ELEVATION •



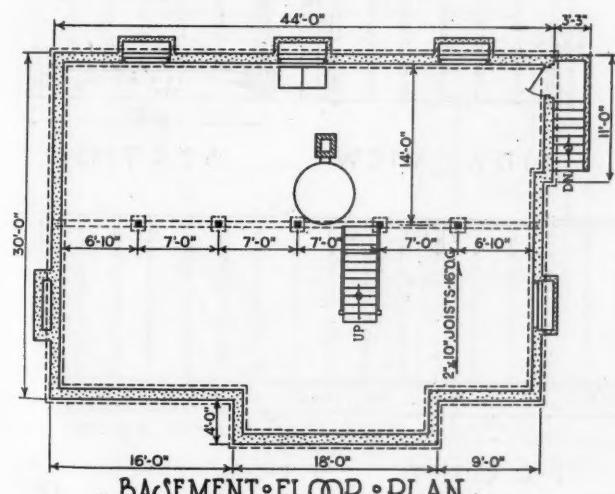
SECOND • FLOOR • PLAN



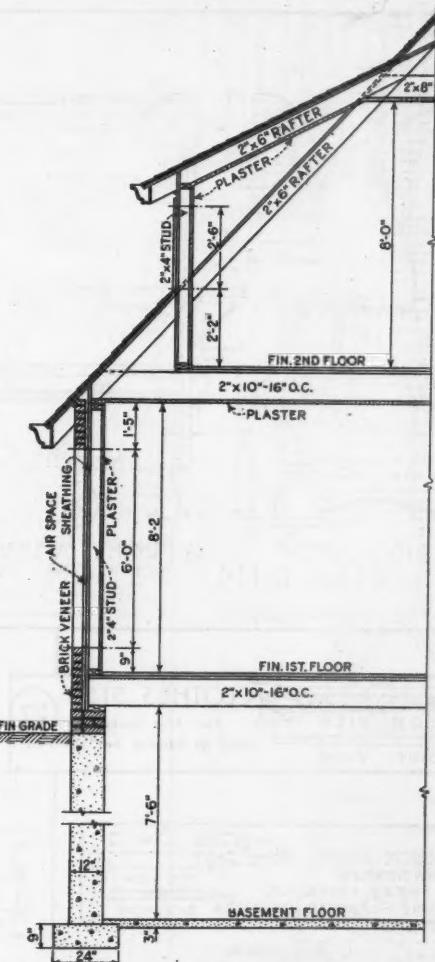
• RIGHT • ELEVATION •



• FIRST • FLOOR • PLAN •



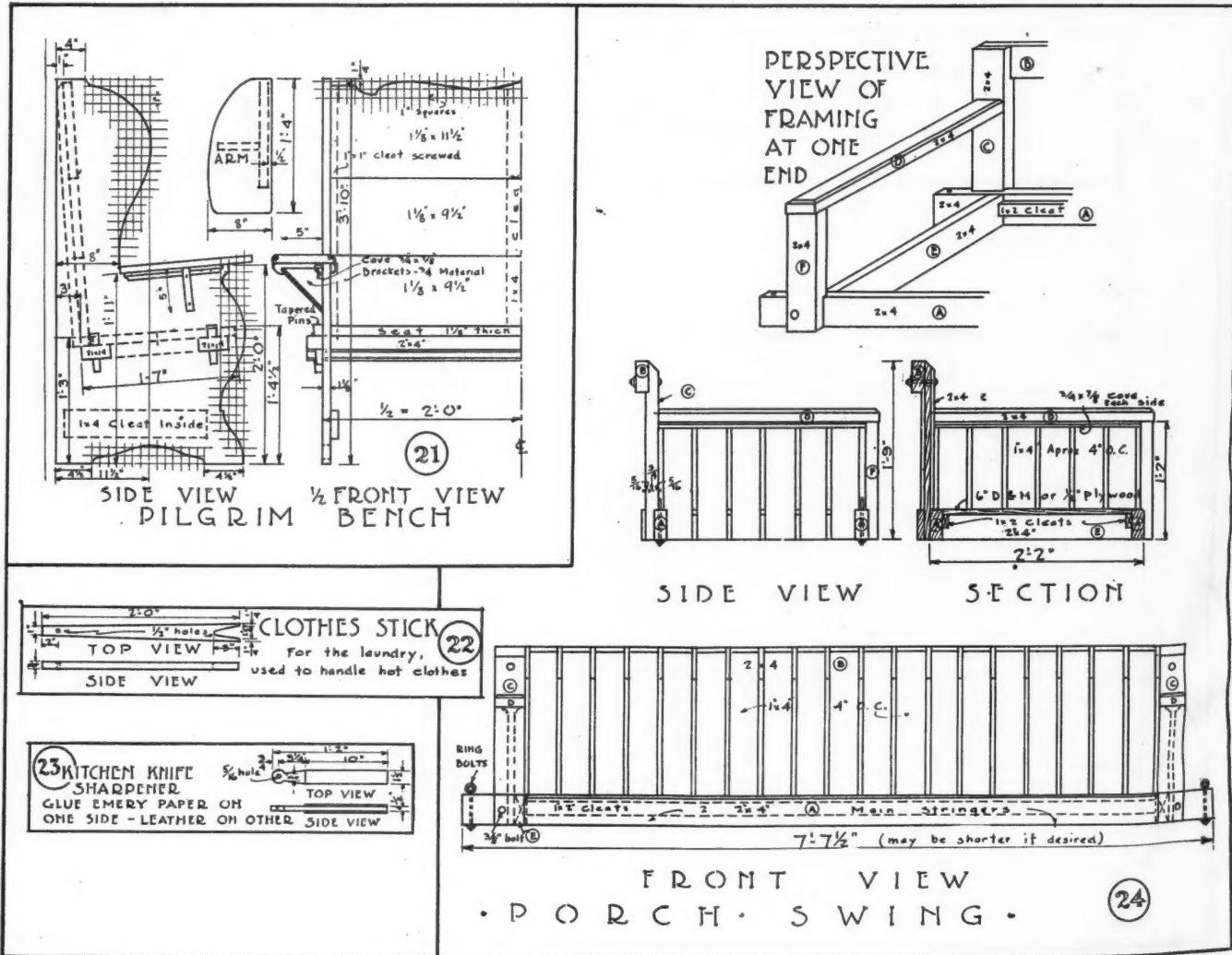
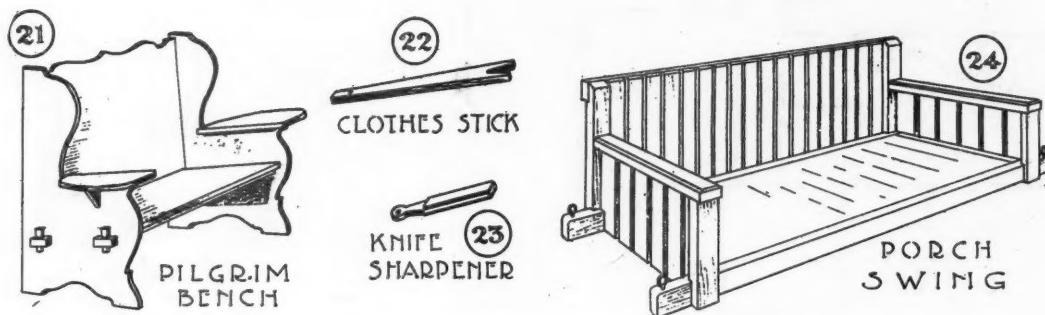
• BASEMENT • FLOOR • PLAN •



• SECTION • THROUGH • LIVING • ROOM •

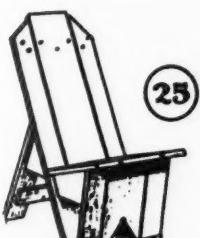
Timely Projects for Tool Users

THE importance to the retail lumber dealer of popular handcraft projects of the kind shown below has been emphasized by H. E. Westerman, a prominent member of the Northwestern Lumbermen's Association located at Montgomery, Minn. Like many other up to date lumber dealers, he takes special pains to carry in stock the proper sizes and grades of lumber to serve the needs of home craftsmen. There is a good market for these pieces and they are easy to make.

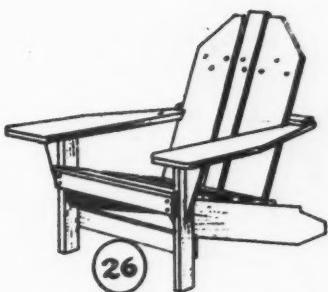


Wood Specialties For Craftsmen

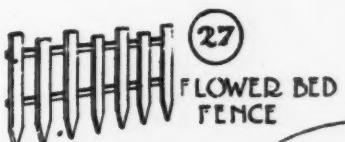
MUCH good will is built up among home owners and prospective home builders by helping them to follow these woodworking hobbies. H. E. Westerman has distributed details like those illustrated here to the manual training students, carpenters and others interested, and has exhibited in his show windows examples of craftsmanship of special interest. The products are easy to make and popular with the public. They make good spare time business for building men.



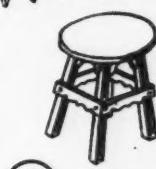
LAWN CHAIR



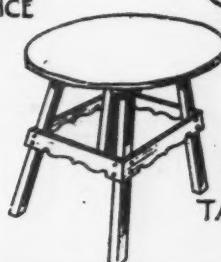
LAWN CHAIR



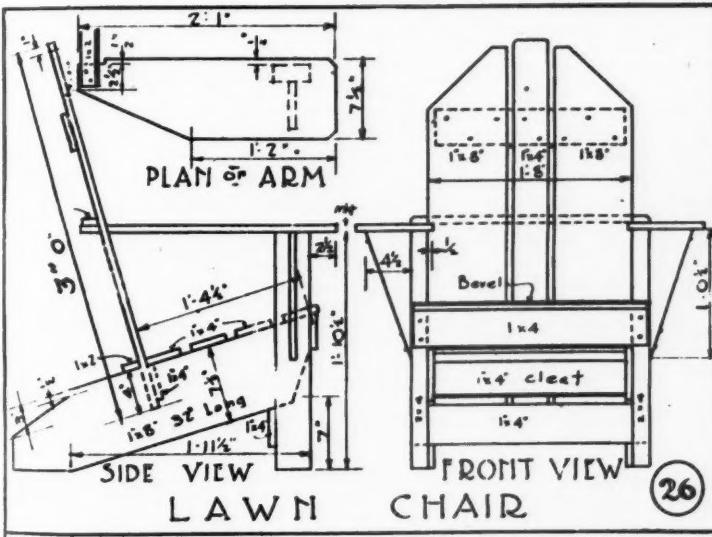
FLOWER BED FENCE



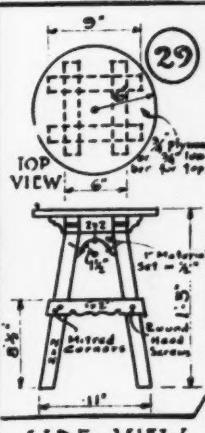
STOOL



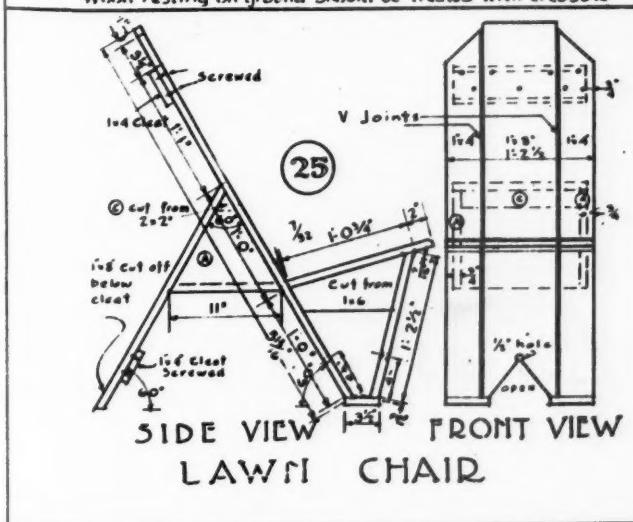
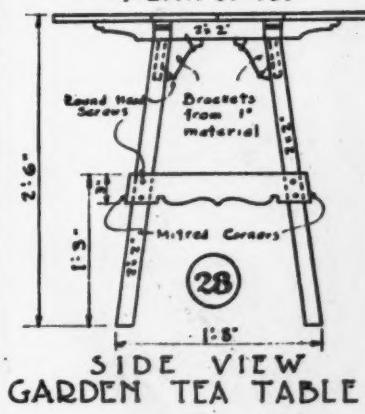
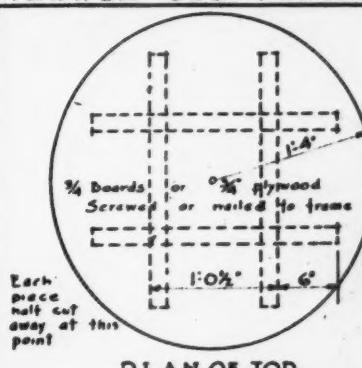
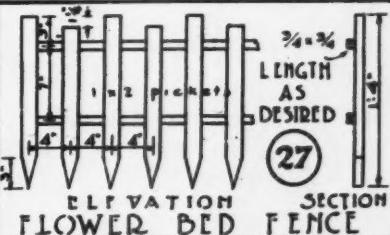
TEA TABLE



Wood resting on ground should be treated with creosote



GOOD TOOLS
ARE NECESSARY
FOR SUCCESSFUL
CRAFTSMANSHIP



PRACTICAL JOB POINTERS

A READERS' EXCHANGE of tested ideas and methods, taken from their own building experience. Two dollars is paid for each contribution published.

Holds Pieces in Place

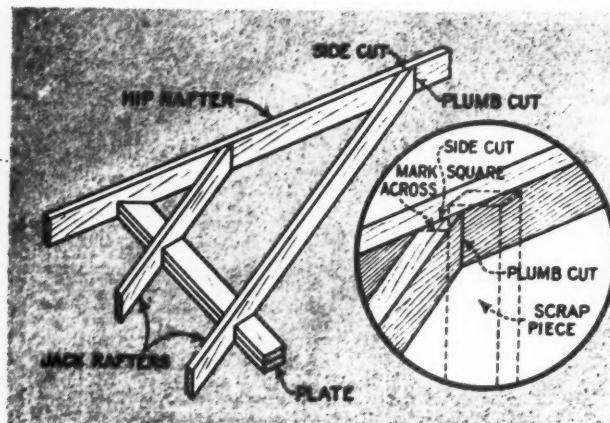
STANDARD and other upright pieces of wood that have to be toenailed to the plate have a strong tendency to slip out of place when they are being nailed. To prevent this, the accompanying rubber bottom wedge will be a great help. Simply cut a wedge from 2-inch stock and sole it with inner tubing. The soft rubber will not and cannot move back so it will keep the material squarely in place.—A. S. WURZ, Jr., Rockyford, Alta., Can.



Rubber band over block keeps it from slipping.

To Lay Out Jack Rafters

ISEE you offer \$2.00 for ideas: Here is one on how to lay out the side cut on jack rafters, regardless of pitch. The idea works the same—all you need is the plumb cut and a scrap piece of the same thickness of material, and you have it. This is a time saver and you do not need to fill your head full of figures.—R. J. STARKEY, Stubbs, Calif.



By this method jack rafters are quickly laid out

Weathershield Door

IAM enclosing some photos of my new exterior door weather protection—something to take the place of the storm door. Outside of weatherstrips, little thought has been given to the protection of outside doors. We have storm windows for windows and receive benefit from the air space as insulation, but homes without vestibules have just a single thickness of material between it and outside (the wood door itself). This door being



Door protected by weathershield which is attractive in appearance

of wood, an expanding and contracting material, there can be little wonder that contractors and carpenters have headaches from trying to keep outside doors in the door frame because of the twisting and excessive expansion and contraction. Any wood with zero on one side and 80° on the other side is bound to twist; they make the curve in barrel staves that way.

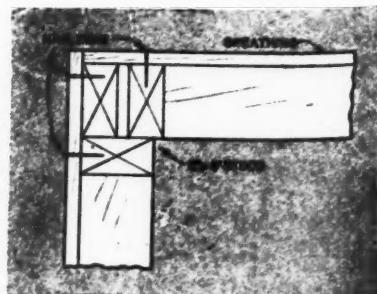
Storm doors have been elevated from the dark ages to the present storm and screen combination door now made and sold in considerable quantities. I see that the old type of batten and high light doors are listed in catalogs and are being sold.

The home builder very carefully selects his architect to design his house, that it be practical, architecturally correct and look well. They spend many hours together to this end. Then later this same home builder goes down to the department store and buys a combination screen and storm door (absolutely foreign to the architectural scheme of his house) and covers his good looking entrance door with it for 12 months of the year. His guest approaches his door (his token of welcome which now is covered with combination storm door) and is rudely asked to step back and down the brick steps while he, the home owner, swings outward his combination storm door. This can be very dangerous in icy weather. The screen door in summer is not as bad because it can be seen through, talked through, and again it is rather unlikely there would be any ice in summer.

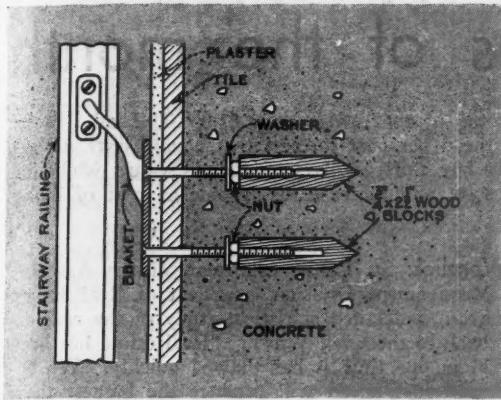
I have built a "weathershield" made of wood and an insulating material and fastened to the permanently hung door, thereby swinging with it. There is no additional hardware to manipulate. Its features are a single unit to pass by or through in entering, it has insulation plus air space, is weathertight before the permanently hung door, can be left on permanently or used as a seasonal appliance and can be used to considerable advantage in remodeling.—EDWARD E. BENSON, Providence, R. I.

Best 3-Stud Corner

IAM enclosing a sketch of my method of a three-stud corner for dwellings which makes a better job if properly nailed than the one illustrated on page 40 of the April issue. It is highly recommended.—WM. S. LIBBEY, Longmeadow, Mass.



The building superintendent, Mr. Libbey, who is superintendent of the building department of Longmeadow, recommends this three-stud corner.



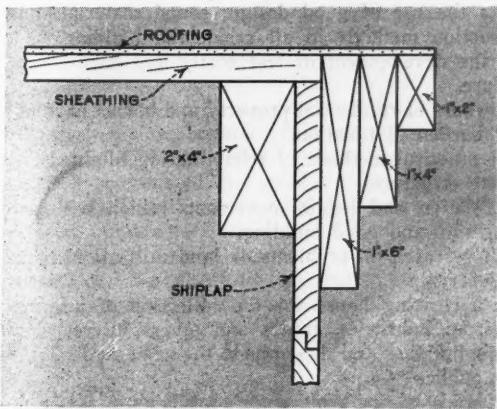
Stair Rail Bracket

AM enclosing a drawing of how to fasten stair rail brackets into brick, tile or concrete wall.

Make a block $\frac{3}{4}$ inches square, $2\frac{1}{2}$ inches long, bore a hole $\frac{3}{16}$ inch in diameter (do not bore hole through), place a washer on the bolt, then run on the nut so that about a half-inch of the threads protrude out, then screw on the block of wood up to the nut. This will have to be done after the bolts are in the bracket. Fill the hole where the bracket is to be placed with concrete, insert bolts with bracket on into concrete, and let set. After concrete is hard and firm, tighten up on bolts with a screw driver and you have a bracket that is fastened to stay firm.—C. R. SCHULTZ, Menahga, Minn.

Tight Cornice

AM sending you a sketch of a cornice I used instead of the large 5-inch crown molding on the English style houses. I have been using this construction for several years and find it easier to put up, and it is absolutely airtight and leakproof.—HENRY J. STEELE, Rapid City, S. Dak.



At left is method recommended by builder to give tight cornice

At right is detail of handy casing gauge that saves time and is accurate.

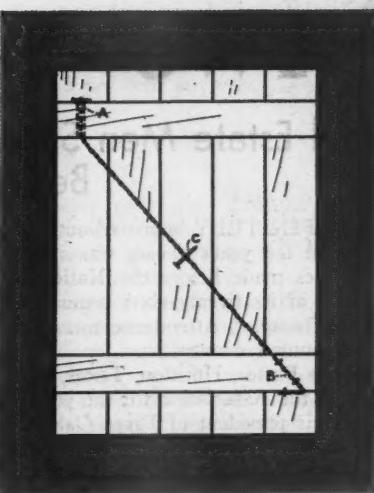
To Brace Doors

HERE is a method for bracing doors which I have found very satisfactory. It is a good way to pull old doors back into shape and a simple method to build new ones. Many barn doors, hog house, chicken house and brooder house doors are built in this manner and need a brace of some kind.

I have shown two methods of bracing on one drawing. On small doors where the cleats are narrow, it is neater to drill a $\frac{1}{4}$ inch hole about 2 inches from end of cleat as shown at A in drawing. Many times a hole is impossible; in that case saw a groove diagonally across the cleat about $\frac{1}{4}$ inch deep, as at B. Now you double a piece of No. 12 or 14 wire so that it is a few inches longer than diagonal distance across the door. Run the loop end of the wire up through the hole, slip a nail through the loop, pull wire down and you have that end fastened. Then the loose ends of the wire are pulled tight and hammered into the slot sawed in the bottom cleat. Two or three small staples will hold the wire in the slot and the loose ends are bent back parallel with the cleat and stapled. You now twist the wire at C with a nail until proper tension is obtained. The nail can then be removed.

The slot method can be used on the top cleat too if so desired, or the hole method can be used on both cleats if the holes are drilled before the door is hung. On doors with wide nailers, the slot method is best, but where the holes can be drilled, it makes a neater looking job.—DONOVAN MYERS, Avon, Ill.

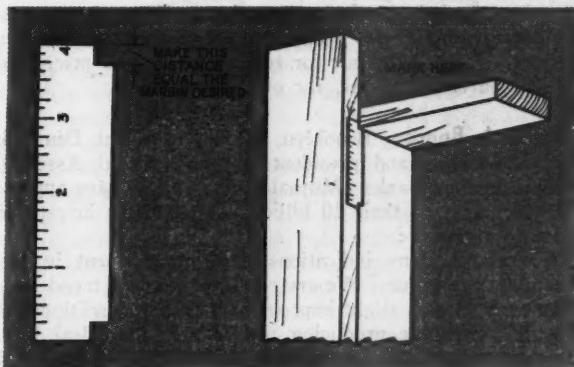
For straightening an old door or bracing a new one use this method.



Handy Casing Gauge

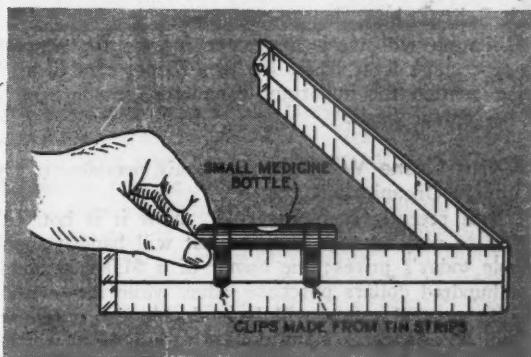
TO mark quickly and accurately the place to cut the upper end of a casing, a little tool like the sketch below is very useful. The notches on the two ends should be made $\frac{5}{16}$ inch and $\frac{1}{4}$ inch respectively; other figures may be used depending on the desired width of margin around the jamb. By making the ends exactly square and dividing the back into sixteenths of an inch, the usefulness of the tool is greatly increased. A convenient length is four inches. The width should be about $\frac{3}{4}$ inches, the thickness of a standard board. Any scrap of metal may be used, but brass, about 18 gauge, is perhaps the best.

Fit the lower end of the casing to the floor in the usual manner; stand the casing in place, but flush with the jamb. The notch in the gauge is put against the under side of the head jamb; the mark is drawn along the top end of the gauge.—H. R. EMMERSON, College Place, Wash.



Level on Rule

SHOWN below is a handy level that clips on rulers, boxes or other flat surfaced objects that may be easily made from a small medicine bottle and two short strips of tin. First fill the bottle with colored water, leaving space for a small bubble. Tighten the strips on each end of the bottle in the method shown, allowing the clips to extend down about 1 inch. When in use the tin clip is slipped over the object until the bottom of the level bottle is flush with the surface.—LEONARD MITCHELL, San Francisco, Calif.



NEWS—building activities of the month

Real Estate Men See Better Times Ahead

A DEFINITELY improved outlook for real estate, immediately, and for years ahead, was reflected strongly in reports and addresses made before the National Association of Real Estate Boards at its twenty-sixth annual convention which closed June 19 in Chicago. Attendance was close to double that of the previous annual convention.

Hugh Potter, Houston, Texas, home builder, was elected president of the Association for the year beginning January, 1934. Mr. Potter is president of River Oaks Corporation, and developer of the notable River Oaks residential community. He is a past chairman of the Home Builders and Subdividers Division, and president this year of the Houston Chamber of Commerce.

Waverly Taylor, home builder of Washington, D. C., was elected chairman of the Home Builders and Subdividers Division. Highlights of convention speeches include the following:

W. C. Miller, Washington, D. C., president:

"Unquestionably we are already feeling a profound change in the real estate market. Equity values have increased. Mortgage holders are taking a wholly new attitude toward their securities. Inquiries from prospective buyers are everywhere increasing. Asking prices tend to stiffen. The United States Department of Commerce tells us that we have, right now, an unrealized shortage of half a million single family dwellings. We, as a people, are making a profound re-examination of our principal investment devices. Real estate is ready for this re-examination."

Dr. C. E. McGuire, Washington, D. C., consultant to leading insurance companies on their mortgage problems:

"A long period of inflation lies ahead. There is no reasonable ground to doubt this. I am inclined to think that the upward movement is likely to last for several years. As prices rise people will purchase houses, for obvious reasons."

Philip A. Benson, Brooklyn, N. Y., president Dime Savings Bank, Brooklyn, and president of the National Association of Mutual Savings Banks (Mutual savings banks have approximately 58 per cent of their 10 billions of resources invested in real estate mortgages):

"There are many indications that improvement in mortgage conditions has begun. We are confident that the trend is definitely upward. Just a slight improvement in rent conditions will tend to stabilize income producing properties. The ideal investment has always been the conservative first mortgage on well located real estate. I believe that the future will continue to show this type of investment to be the most satisfactory."

Harry S. Kissell, Springfield, Ohio, past president of the National Association of Real Estate Boards, chairman of the board of the Cincinnati Home Loan Bank:

"Recent action of the Prudential Insurance Company, for example, ordering its correspondents and agents to increase the sales price of all repossessed properties 10 per cent as of July 1st constitutes some of the best news that real estate has heard for three years."

J. Solis-Cohen, Jr., Philadelphia:

"Inflation will mean a greater income for properties rented on percentage lease basis. Perhaps 75 per cent of all leases now being written for important commercial use are on some form of percentage basis."

Cyrus Crane Willmore, St. Louis, president of Cyrus Crane Willmore Organization, Inc.:

"Until recently cash was cold. Now it is hot. That means plenty to real estate. This is what will happen should inflation double today's prices; the owner of a \$1,000.00 bond will have five hundred dollars purchase value, while the owner of a commodity or real estate will have double the purchase value for it will take twice as many dollars to buy \$1.00 worth of today's

value. The income of the owner of a \$1,000.00 bond will be cut in half, for the 6 per cent interest that equals sixty dollars a year, will only buy thirty dollars of today's value, while the owner of real estate will increase his income as cost of living goes up."

Delbert S. Wenzlick, St. Louis, Chairman of the Association's Property Management Division, president of Real Estate Analysts, Inc. (From a detailed statistical study of the real estate cycle going back to the Civil War): "Real estate has been frozen before, and in due time it has thawed quickly. We believe that the period just ahead will produce the biggest thaw we have thus far seen."

To Organize Home Builders

PLANS for a meeting to be held in Chicago about the middle of September to organize a national association for better housing were announced at the Real Estate Convention in Chicago by J. Soule Warterfield, vice president of the Starrett Building Company.

Mr. Warterfield was chairman of the recent National Conference on the Renewal of Home Building, from which the new organization is developing. It will bring together, for conference, study and common action, the various groups concerned with home building and with the safeguarding and advancement of home ownership. This means both the civic and social institutions concerned with the home, and the various persons, businesses, trades and professions which together constitute the housing industry. The purposes of the new institution are, Mr. Warterfield said:

- a. To foster residential development in accordance with comprehensive neighborhood, community, city and regional plans designed to preserve homelike surroundings and to stabilize values.
- b. To promote the use of good design, sound materials and improved construction methods in all residential building.
- c. To aid in the development of less costly and cumbersome financing procedure.
- d. To assist owners of residential property and homes in equalizing the unfair burden of taxation.
- e. To support practical methods of rehabilitating blighted districts and obsolete structures.
- f. To aid legislation and public movements which will promote home ownership and good building.
- g. To conduct research on problems of land utilization, housing and home ownership.
- h. To act as a clearing house for the collection of information and news from industries, trades and others interested in housing and home building and disseminate the same to its members and to the public.
- i. To conduct such co-operative enterprises among the members of the association as may be in accordance with these objects.



Magurn Active With Pottscos

A NEW charter has recently been issued to the Pottscos Corporation, Chicago, which shows a change in personnel of the company handling the patent rights and sale of Pottscos Lightweight Concrete Aggregate.

H. H. Potts remains as President, and E. A. Magurn, a former member of the editorial staff of the American Builder, becomes Vice-President of the company.

Pottscos has been used throughout as floor-fill or light-weight concrete on the floors of the \$25,000,000 Chicago Post Office Building and also in the large new Post Office Building at Cincinnati which is now being completed.

American Builder, July 1933.

Marriages Affect Home Building

MARRIAGE licenses issued in Chicago for the first five months of 1933 totaled 10,471, an increase of 304 over the corresponding period in 1932, Chief Clerk Sidney Summerfield of the marriage license bureau has reported. He said the increase is a sign the depression is over.

That there is a direct relationship between the marriage rate and home building activity was shown by Roy Wenzlick, real estate analyst, at the Real Estate Convention in Chicago June 14.

Reporting on a study made in St. Louis, he spoke as follows: "The marriage rate in St. Louis reached its peak in 1920 and has been consistently declining since. It crossed the normal line in 1924, and the accumulated shortage of marriages below normal in St. Louis alone is now over 20,000. Previous subnormal periods have been followed by abnormal periods until the shortage

deed of trust to be offered as security, complying, to be sure, with the requirements of the R. F. C. The remainder of the cost is to be financed through bonds representing a second deed of trust and offered to investors at 5 per cent interest.

B & L Pays 700 Millions

BUILDING and loan associations paid some \$700,000,000 to their investing and borrowing members during the first four months of 1933, according to totals made public May 27 by the United States Building and Loan League.

Dividends paid on the first of January account for \$175,000,000 of the total. Repayments to shareholders of the money which they had invested in the associations, and cash loans to savings members on security of their shares in the associations, accounted for the largest portion of the disbursement, \$355,000,000.

The remaining \$170,000,000 was loaned to families for various purposes in connection with ownership of their homes. Advances to pay taxes and insurance, long term credit to refinance short-term mortgages which other types of mortgage lending institutions found they could not renew, and loans to people newly undertaking home ownership either by purchase or building were the principal items in this total. The pick-up in residential construction noted in April and early May figures was largely financed by this extension of credit on the part of the associations, says the League.

Notes on World Fair at Chicago

Electricity in the home is demonstrated in the Electrical Group, in three full sized displays of living room, kitchen and basement. In the living room is shown the contributions of electricity to comfort and to beauty. A feature of the kitchen is a perspective from the electrical kitchen of today, with all its equipment and appliances gleaming in bright metal and enamel, into the kitchen of yesterday that, in comparison, will appear a primitive workhouse indeed. In the basement is the work shop containing power-driven tools with which the home craftsman can fully satisfy his urge to make things.

A complete set of farm buildings in model size showing the latest developments in design of such buildings gives an overall picture of farm electrification. The details of this picture are filled in by displays of actual equipment to perform the many tasks to which electricity can be applied on the farm. In the list of displays under this head are more than thirty different electrical applications ranging from bug killing to silo filling. A particularly interesting feature of the farm electrification section, presented with the assistance of Purdue University, are electrical uses in plant husbandry such as soil heating, irradiation, etc. To demonstrate that electricity has more than just prosaic utility value on the farm, but can add beauty as well, there is also a color illuminated rock garden on display.

Five model stores show the most modern methods of lighting commercial places according to their specific requirements as well as the specialized uses to which electricity can be put in each.

Twenty Dollars for the Taking—In the Westinghouse exhibit is a photo electric burglar alarm protecting a cage such as might be used by a bank teller. Within the window temptingly displayed is a twenty-dollar gold piece, a plate of cookies and a pair of pliers. Any visitor can have these if he can get them. No matter how fast and carefully the hand is thrust out to grasp them its shadow causes a barrier to rise suddenly from below and protect the treasure within.

General Electric Company has brought its latest miracles of electrical science out of the laboratory. It exhibits the thyratron organ—size of a piano, but combining the range, volume and musical quality of pipe organ and calliope. It shows the fever machine—wonder device for increasing temperatures at will in fightin diseases. It demonstrates the communication of sound over light beams. Equipment illustrates the application of electricity to transportation by land and water, to scores of industrial uses, and to the home—including electric cookery, refrigeration and air conditioning.



has been balanced. In the period of the war, marriages were increasingly below normal. The shortage in this period was a little over 4,000. In the 5 years immediately following, marriages approximated this same number above normal.

"In periods such as we have just come through marriages are delayed, apparently, not lost. They create a concealed, little understood, but most important potential demand, not only for housing but for furniture and many other lines. Their release will absorb most of our vacancies."

St. Louis Plans Model Home Block

A MODEL home block for wage-earners within walking distance of the downtown business section is planned by the City of St. Louis.

Plans drawn for the new project are for a three-story building to cover an entire city block providing homes for 252 families, including 131 two-room efficiency units, 105 three-room efficiencies and 16 four-room units.

Monthly rentals including cost, interest payments and maintenance, heating and gas would be low. The two-room apartments would rent for \$23 a month; the three-room units for \$29.50 and the four-room units for \$39.

Plans for the project were drawn by the architectural firm of Hoener, Baum & Froese. As planned, the structure is to be of the three-story walk-up type with no corridors. Each unit will have toilet and bath. There will be no basements aside from the heating plants. Laundry facilities will be arranged in the attic space, affording light and excellent ventilation.

Estimated costs are divided as follows: for the purchase of land, one city block in area, \$109,890; cost of building, \$416,217; interest at 5 per cent, taxes at present valuations, and cost of insurance during period of construction, \$24,188.

Plans of financing the project call for the obtaining of a loan of \$375,000 from the Reconstruction Finance Corporation, a first

NEW PRODUCTS

FOR FURTHER INFORMATION about any new product write the American Builder Information Exchange, 105 West Adams Street, Chicago, Ill.

New Style Seat

ONE of the most practical new building specialties recently announced is a new style sanitary seat with open back construction. The seat cover nests gracefully into the seat, giving the appearance of a one-piece unit. Unusual sanitary qualities are given by the complete absence of hinge screws, hinge bars or other hardware. There are no dirt-catching crevices or devices.

An important feature of the new style seats is the fact that the cover requires less room to open up. The seat will rough in $1\frac{1}{2}$ to 3 inches closer than other seats and is guaranteed to remain upright.

The new style seat is designed for great comfort and good appearance. With cover lowered, it provides a flat surface with large seating area for use as a dressing stool.

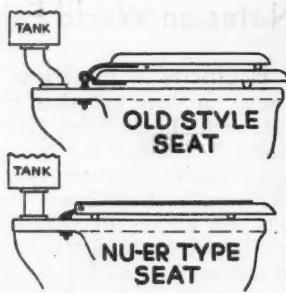
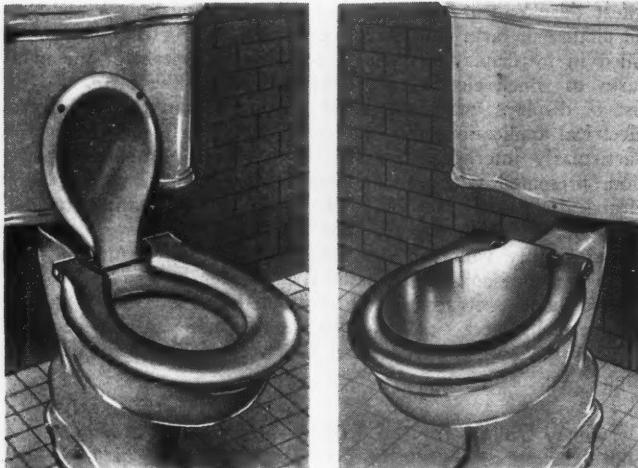


Diagram at right shows difference in space required for old as compared with new type seat just placed on market. Below are two views showing attractive, flat surface.



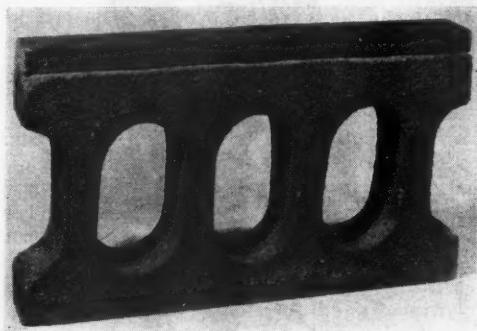
Copper Clad Building Paper

THE manufacturer of a well known brand of tough, water-resisting building paper reinforced with non-elastic untwisted sisal fibers embedded in asphalt has just announced the addition of a new copper-armored paper. To the standard waterproof building paper has been added a thin layer of sheet copper. The combination of waterproof building paper and copper makes a fire-resistant, insulating and permanent paper that has many advantages. It is especially suitable for use in flashing around doors and windows.

The copper sheets used are produced by the new electro-deposit method which makes possible the production of large sheets of extremely thin copper; they may be had in weights as light as one ounce per square foot. Building paper reinforced with this copper has great strength and permanence.

Light-Weight Aggregate

USE of light-weight concretes, for weight-saving, prevention of heat loss and for better acoustics or quieter interiors has been on the increase for several years. An interesting new product of this type is illustrated below. This shows a cross-section sawed from a standard 8"x8"x16" building block in which there is no sand or gravel. It is made with an expanded or granulated slag aggregate made by a patented process at the steel mills. Concrete made from this is strong but light in weight. Blocks have been moulded from this material which showed a compressive strength of over 1000 pounds per square inch. It also showed the very low heat loss of .30 B. T. U. per inch per degree temperature difference per hour. Poured in place for floor-fill or roof slabs, the light weight concrete weighs only 70 to 75 pounds per cubic foot but fully complies with the U. S. Government specifications calling for a minimum compressive strength of 400 pounds per square inch. All the floors in the new \$25,000,000 Chicago Post Office and the large new Post Office at Cincinnati use this floor-fill and many concrete products plants in the middle west are furnishing light-weight building units of this type.



Light weight concrete block made from expanded slag aggregate.

Lifetime Screens

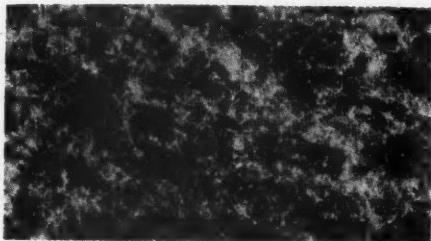
A LINE of permanent screens built entirely of metal and thoroughly modern is of interest to builders. The screens are light in weight, are extremely strong, and permanent. The all-metal construction prevents shrinkage, warping, swelling, twisting or rotting. They have concealed corner reinforcements, attractive hardware, and are wired with bronze, rustproof, clear vision netting. Trim narrow lines and bronze hardware give them attractiveness. Flush hardware eliminates the chance of drape or shade damage, and makes storage easier. Each screen is numbered.

Covering Old Roofs

CONTRACTORS and roofers are going after reroofing business these days as the course of the depression has created a great pent-up demand for this type of business. A special drive to increase this type of business is being made by a manufacturer of a new roofing base which gives greater strength and permanence to asphalt roofing.

Ability of roofing made with the new cellulose fiber base to shape or mold itself without breaking or cracking over old hips, valleys, ridges, dormers, etc., is especially useful in reroofing work. The old shingle roof is used to give added insulation, and the expense of tearing it off is avoided.

The new type cellulose fiber roofing base now being used by a number of manufacturers of quality asphalt roofing has great strength, flexibility and toughness which it imparts to the roofing. Fibers are highly absorbent which enables them to absorb a larger percentage of asphalt.



Microscopic view of highly purified cellulose fibre used as base for new type permanent asphalt roofing.

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*Compare it with other glasses for
PERMANENT WHITENESS . . .*



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stands alone

PERMANENT whiteness in a window glass is important. Only the glass that stays permanently white can *transmit colors truly* during its life. Without proper whiteness, a window glass will change the hues of objects seen through it, because the color in the glass subdues and weakens the values of other colors beyond it.

Pennvernon Window Glass is the *only* window glass that stays permanently white. That's our claim. But we can't expect you to take

such a statement on faith. So we want you to make an actual comparison . . . and see for yourself.

Take a sample of Pennvernon. Take a sample of any other sheet glass. Lay them side by side outdoors where the sun can bathe them for fifteen days. At the end of that time, examine them closely. Look at their edges. And then you'll believe us! . . . because your own eyes will tell you that our claim is true.

Permanent whiteness is only one of the qualities which make Penn-

vernon the finest window glass you can specify. It has others. Greater transparency, with greater clarity of vision. Greater brilliance of finish, with consequent finer reflective value. Longer life.

Make the test for whiteness described here. That's the only way to convince yourself of Pennvernon's superiority in this respect. Pennvernon is available in single or double strength, and in thicknesses of $\frac{3}{16}$ " and $\frac{1}{2}$ ", at the warehouses of the Pittsburgh Plate Glass Company in all principal cities, and through progressive glass jobbers and sash and door manufacturers. Write for samples. Pittsburgh Plate Glass Company, Grant Building, Pittsburgh, Pa.

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J. H. Roe, of Tigerville, S. C., roofed this building with Edwards Metal Shingles 25 years ago. He writes that it is still in perfect condition although not a cent has been spent for repairs or up-keep. Mr. Roe says: "Edwards Metal Shingles are the best shingles I ever handled."



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NEW PRODUCTS

FOR FURTHER INFORMATION about any new product write the American Builder Information Exchange, 105 West Adams Street, Chicago, Ill.

Ten Cents a Ring

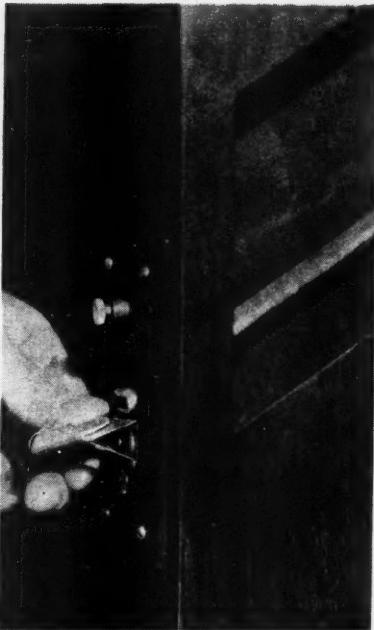
A NEW coin control for door bells which serves as a protection for housewives against annoyance by salesmen, solicitors, agents, beggars, etc., is of interest to builders. It costs ten cents to ring the bell.

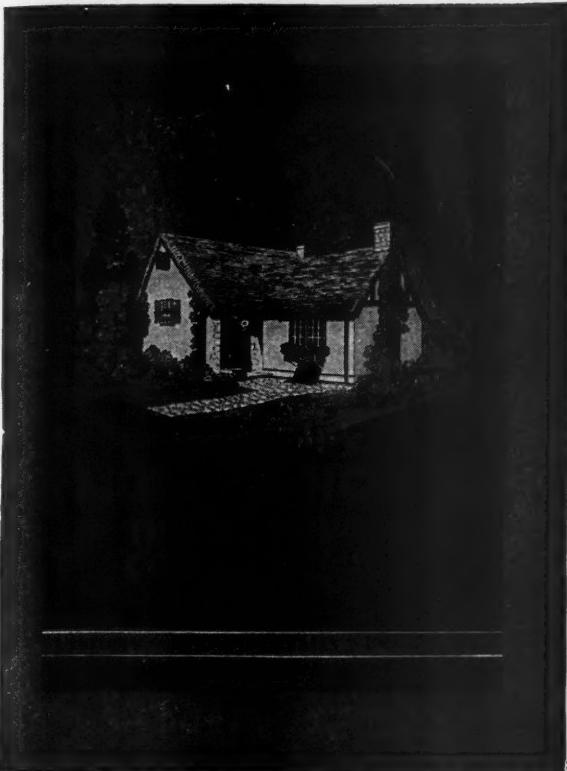
The device is extremely simple, there being no moving parts or gears to get out of order. The only evidence of the device visible on the outside is a small, bronze plate with a small slot through which a dime will pass, attached to the door jamb above the bell button. On the plate in neat letters is the admonition: "This bell will not ring without inserting a dime. Coin will not be refunded to canvassers or peddlers."

A small hole bored through the door jamb admits a sloping, metal chute through which the dime passes when deposited in the slot. The dime slides down to the end of the chute on the inside of the door jamb where it rests against the end of the chute in such a way as to establish the electrical circuit which actuates the door bell.

The dime is lying in full view of the housewife when she answers the bell, in consideration of which a slug or any other fraudulent means would be useless if employed.

Three views of door bell that won't ring unless 10c is deposited. At right is shown coin return.





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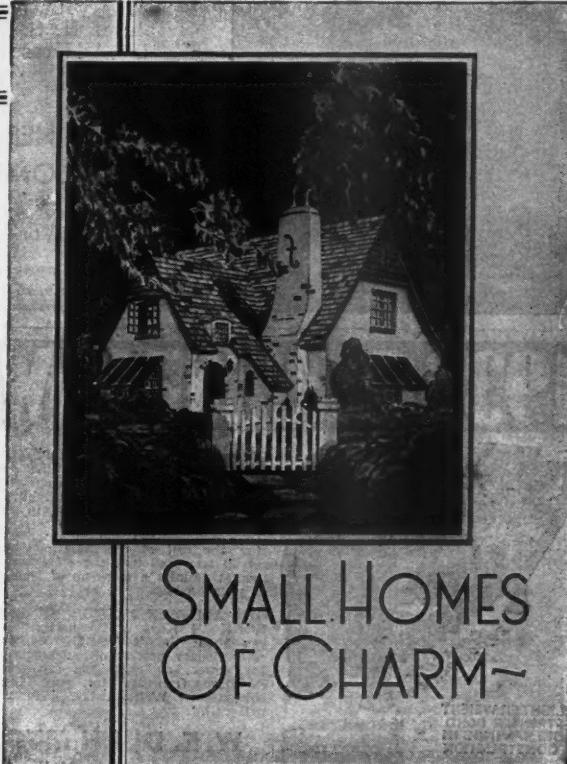
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Ball Bearing. Includes 22" band saw, 12" jointer, circular rip and crosscut saw and boring machine.

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WOODWORKING MACHINES

NEW PRODUCTS

FOR FURTHER INFORMATION about any new product write the American Builder Information Exchange, 105 West Adams Street, Chicago, Ill.

New Portable Pump

A NEW 3" self priming centrifugal pump of the recirculating type, automatic in action after the recirculating system is once filled, has recently been added to the extensive line of one of the largest manufacturers of contractors' equipment.



New portable pump will handle 20,000 gallons per hour. Weighs only 385 pounds.

The new pump has been developed to provide a pump very close to the same light weight portability of the 2" class, with a greatly increased capacity. It meets the A. G. C. rating for 3" pumps with capacity to spare. The unit weighs only 385 pounds, is 34 inches high and 37 inches wide, and is capable of the following capacities:

5 ft. suction lift—20,400 gallons per hour
10 ft. suction lift—18,300 gallons per hour
15 ft. suction lift—16,500 gallons per hour
20 ft. suction lift—14,000 gallons per hour
25 ft. suction lift—9,000 gallons per hour

The new and unique self-priming device known as the "prime control" is used. With this simple mechanism the pump's recirculating system can be adjusted to assure maximum capacity and minimum priming time on any suction lift.

It is claimed by the manufacturer that this recirculating system will pick up the prime in record time on any suction lift up to 25 feet and it continues to pump with an air leak in the suction line that stops an ordinary centrifugal pump but only reduces the capacity.

The impeller is of the open trash type with two blades instead of the customary four. With this new design the pump is capable of handling a high percentage of solids and will pass a sphere up to 1½" in diameter. The power is supplied to the unit by a compact air cooled engine which develops 6 horsepower.

The pump and engine are mounted on a wheel barrow frame to provide the utmost portability, and both the pump and power unit may be removed from the frame by loosening four bolts. A ring on the top of the pump permits it to be lowered into a hole with the block and tackle, in cases where the depth of the hole exceeds the suction lift of the pump. An electric motor driven speed primer can be furnished with a power unit adaptable to the electric current characteristics of any locality.

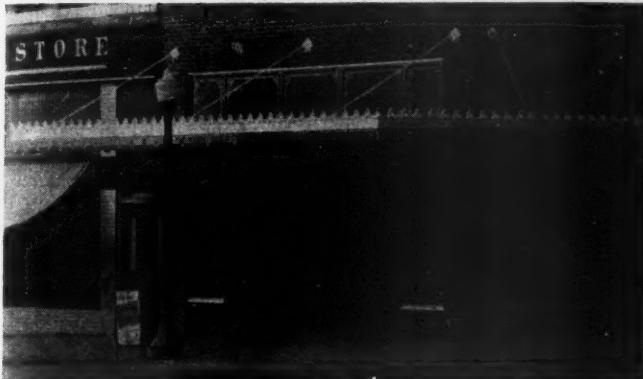
American Builder, July 1933.

47

Glass and Metal Marquise

A NEW product of much interest for the remodeling and dressing up of stores and shops, especially in regions where the sun gets very hot, is now on the market. It is a permanent glass and metal awning or marquise that admits light and ventilation, yet turns away rain and snow and provides protection from a glaring sun.

The marquise is made by laying strips of sheet metal or galvanized iron parallel, and obliquely, so that one overlaps the other, and yet leaves a space of three or four inches between. This admits refracted light down through the awning, and at the same time admits of perfect ventilation so that heat will not accumulate beneath the awning in the summer time. The strips are so overlapping each other that they turn rain. The lower edge of each strip is curled so as to form a perfect individual trough, so each strip is its own trough and carries off its own drainage.



New permanent awning of steel and glass admits light and air.

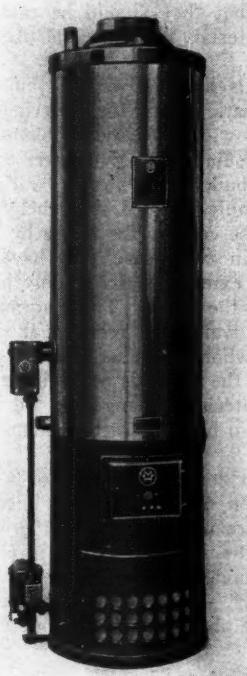
Snap-Action Water Control

A NUMBER of important improvements, chief of which is a new mechanical snap-action control, have been announced on the line of oil burning water heaters of a midwestern firm. The new type control system using an oil pilot eliminates a need for and use of electric current or gas, permitting units to be sold and operated in territories not served by these utilities.

The snap-action of the thermostat of the new control is actuated by a vacuum-type bellows. A drop in the temperature of the water in the boiler of the heater causes a vapor contained in the bellows assembly to return to a liquid which exerts a vacuum pull on the bellows itself causing the snap-switch to be thrown to an "on" position. Reversing the cycle, a rise in temperature causes the fluid to expand and vaporize, lessening the vacuum and permitting the switch to snap back to its natural "off" position.

The new control is completely assembled for the heater by the manufacturers and to further simplify installation, spirit levels are mounted in the face of the oil control.

An adjustment on the thermostat enables the user readily to adjust the temperature of the water by means of a small knurled nut.



Snap action control keeps water at desired temperature. Operates without electricity or gas.

**✓ Check
these 14 points**

Pittsburgh Steeltex Plaster Lath is a network of cold-drawn, zinc-coated (galvanized), copper-bearing steel wire, electrically welded, attached to a heavy, tough, fibrous backing. The wet plaster flows around the wire, and adheres firmly to the fibrous backing by its instant bonding action. The result is a solid plaster slab thoroughly reinforced against strains at all points. Pittsburgh Steeltex Plaster Lath has these 14 highly desirable features:

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| 4 Automatic back-plastering. | ✓ | 11 Carries the underwriters' 1-hour fire rating. | ✓ |
| 5 Strengthens framework of building. | ✓ | 12 Instant bonding action. | ✓ |
| 6 Added security over suction or plaster keys. | ✓ | 13 Aids curing of plaster. | ✓ |
| 7 Angle reinforcement at no added cost. | ✓ | 14 Easiest handled lath. | ✓ |

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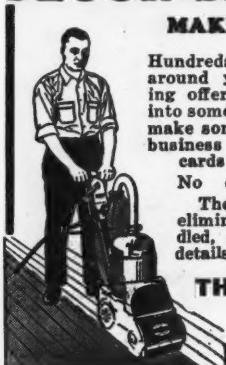
A new device . . . a patented metal corner . . . that braces, squares and clamps any size wooden frame without mortise and tenon, without mitering. Simply saw lumber to required lengths . . . insert into MICKLIN CORNERS . . . nail it . . . and it is complete. Ideal for screens, signs and frames of every description. Low price and long life. Made for $\frac{3}{4}$ inch and $1\frac{1}{4}$ inch lumber. Sold by lumber and hardware dealers everywhere. If your Dealer does not have it send us his name and address.

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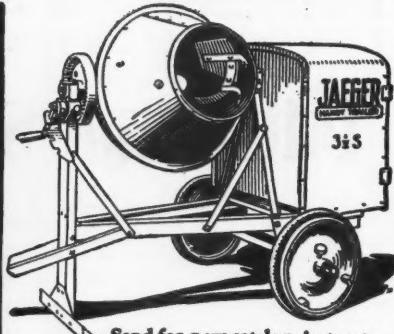
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Why Tested Products Pay

(Continued from page 15)

changes in materials that seem to be without flaws are offered by the hundreds every year, but their real defects are never known until human beings employ them or sun, rain, wind, frost and wear and tear prove them.

In the thousands of years man has been building on this earth, he has discovered certain practical facts about construction, that time can never change, because they are part and parcel of the universe in which we live. The fact that we still use wood, bricks, stones, tiles and other old materials in building houses today is not evidence of the backwardness of the building industry, but that these materials give results that no new substitutes have been able to show.

Yet we should not lose sight of the fact that these old, standard materials are not cut and shaped in the same old way. Woods are cut to standard units, or built into doors and windows or shaped into floor boards, or glued together into panels by processes that in every sense of the word are modern and scientific. Machine made bricks of today are not the same old things that the Egyptians used 4,000 years ago. Plasters are not the same old stuff that our ancestors used. The technology of paint has increased the life and beauty of these covering materials. Knowledge in the use of metal alloys has gone ahead in leaps and bounds.

Growing out of the experience of the older trades, we have a continual stream of new materials which are being tried out by experience. Some fall by the wayside, but those which prove their qualities such as hollow terra cotta blocks, gypsum blocks, concretes of modern portland cement, synthetic roofing materials, white metal alloys, etc., take up their place with the old, tried and tested materials.

Americans are always interested in some new wrinkle in building or equipping a home. It is this progressive spirit that has encouraged and supported a constant improvement in mechanical equipment such as heating, plumbing and electric work. But changes are made only step by step, and are built upon experience gained from actual use.

Thus when we build the modern house and equip it, we are only being very sensible in employing methods and materials that have shown improvements, slowly and consistently. Too radical and novel changes are in most cases full of troubles yet to be found, and there are not many home owners who can afford to find them. We do not scrap our houses every two or three years for a new model. Most of them are expected to last for 30 years or more. We have many models, hundreds of years old at which we look with more pride than we do at some of the latest designs. Building and buying a house is not the same thing as getting a new car or a new suit of clothes. For most people the building of a house is the biggest thing they do in a lifetime, and it is only natural that they should be cautious about untried and untested new materials and methods of construction.

I have noticed that many proposals for new ways of building are based more upon an almost fanatic desire for lowering the costs of houses than upon basic knowledge of the problems involved. For example, I have had submitted to me over many years, hundreds of new ways to build the exterior walls of houses. The inventors have invariably claimed that their new wall construction would cut down the cost of the house by one-third or one-half. Yet practically in every case, they have not observed that the total cost of the exterior walls is only about 8 to 10 per cent of the total cost of the house. Thus, no matter how much the cost of the exterior walls was reduced, it could not possibly reduce the cost of the whole house as much as one-third or one-half. It is no wonder the methods of building exterior walls of houses have not materially changed in the past 25 years when inventors have been so blind to such fundamental cost ratios.

So, too, many of the claims of low cost by designers of houses to be turned out by mass production methods, are modified by the statement that such low costs are not possible until production gets under way. But when the single question is asked, "When is production going to get under way, and where is the great market that will maintain it?" then the answers are far from convincing. I have yet to see any estimate of a potential market, ready for exploitation.

(Continued to page 49)

(Continued from page 48)

In the meantime, the cost of the house built by ordinary methods has decreased so much, that from a cost angle, there is little to attract the home owner to sink his money into an untried, new type. I have been building houses, using modern, tested materials and equipment for as low as 12 and 15 cents per cubic foot, and these have been specially designed for site and owner's needs. I have used local masons, carpenters, laborers and mechanics and selected and bought stock materials from the nearby dealers. Such houses, I am sure, show a lower cost than that promised by the inventors of the factory-built house. The houses which I have built for such low costs are not myths but facts, whereas the costs of some of the promised innovations are still estimates on paper.

What I have done, others can do if they follow similar approaches to the problem. Thus I maintain that low cost houses can be built by tested methods now available, and that critics of the building industry who claim that the efficient and inexpensive house cannot come out of the old and tried methods of construction are not informed of the facts. What we need today is to put more effort into using and developing what we have in the way of materials and equipment. Manufacturers offer builders and architects a wide range of standardized units, in fact almost too wide a range, from which to select. By using good taste, good sense and good management, efficient, beautiful and low cost houses can be built from these materials, proved by use. And now is the time to begin. We have a surplus of many goods, but we have a deplorable lack of comfortable and well-built modern houses.

Home Relief Act

(Continued from page 13)

Illustration No. 4

Taxes and assessments have accumulated to the amount of \$1,000 and the property needs repairs costing \$600. The amount of the mortgage is \$11,500, the loan having been made originally on a valuation of \$20,000. Defaulted interest of \$500 has accumulated, making a total of \$12,000 due under the mortgage. On the basis of the Corporation's depreciated valuation of \$15,000, it may now offer to acquire the mortgage by paying out \$1,600 to cover taxes, assessments and repairs and by turning over to the investor \$10,400 in bonds. It will be noted that the cash payment of \$1,600 and the \$10,400 in bonds total \$12,000, or 80 per cent of the present property value, which is the maximum percentage permissible under the combination cash and bond arrangement. The home owner's new mortgage is \$12,000 payable to the Corporation on the amortization plan previously noted. In this composition the home owner's new mortgage is of the same amount as the indebtedness due under the old mortgage, but he has been relieved of the taxes, assessments and repair costs.

In cases where the home is not mortgaged but the home owner requires funds to pay taxes or assessments or to provide maintenance or make repairs, the Corporation is authorized for a period of three years to make direct loans to cover such requirements in an amount not to exceed 50 per cent of the value of the property. In such case the Corporation takes a first mortgage loan on the property to cover the amount of the cash advances. This mortgage is payable on the amortization plan noted in Illustrations Nos. 1 to 4.

The Act further provides that in any case in which the holder of a home mortgage or other obligation, or a lien eligible for exchange under the Act, declines to accept the bonds of the Corporation, it is authorized to make a direct cash loan to the home owner for the purpose of refunding the existing first mortgage, provided the amount of such new mortgage shall not exceed 40 per cent of the value of the property as determined by the Corporation's appraisal. Loans made under this provision shall have the same terms of amortization and shall bear interest at a uniform rate throughout the United States not in excess of 6 per cent.

The Act further provides that in cases where a home has been lost by foreclosure, the Corporation for a period of three years may exchange bonds and advance cash for the purpose of redeeming or recovering the property for the owner. Such loans, of course, are not to exceed \$14,000 or be in excess of 80 per cent of the appraised value of the property. This clause can only apply to properties that have been foreclosed within a period of two years previous to the exchange.

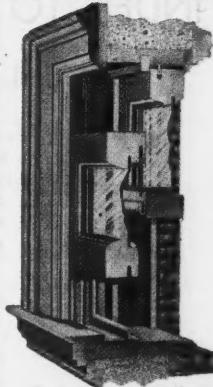
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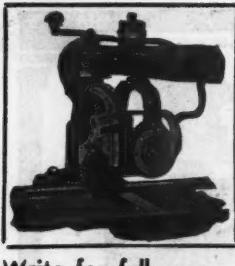
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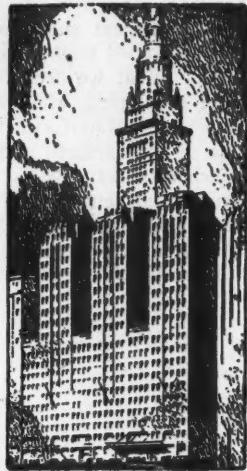
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